RICOH

RICOH PJ WX4141N/WX4141NI

Operating Instructions

Preparations for Using the Projector 1

Projecting an Image 2

Projecting Images from a USB Memory Device or Digital Camera 3

Useful Functions 4

Using the Projector via a Network 5

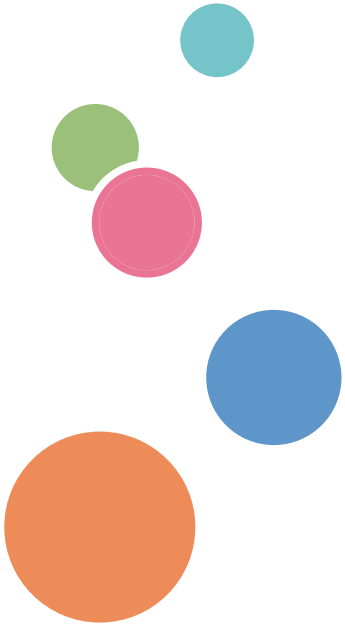
Using the Interactive Function (RICOH PJ WX4141NI only) 6

Changing the Projector Settings 7

Troubleshooting 8

Maintenance 9

Appendix 10



For safe and correct use, be sure to read the Safety Information in "Read This First" before using the machine.

TABLE OF CONTENTS

Introduction 7
Copyrights to Images 7
Important 7
Notes to Users Viewing 3D Images 7
Manuals Provided with the Projector 9
Manuals for the Projector 9
How to Read This Manual 11
Symbols 11
Notes 11
Model-Specific Information 12

1. Preparations for Using the Projector

Precautions for Using the Projector 13
Main Functions 15
Checking the Accessories 17
Projector Parts and Their Functions 18
Control Panel (Top View) 18
Front and Left-Side View 19
Rear and Right-Side View 20
Bottom View 21
Remote Control Parts and Their Functions 22
How to Use the Remote Control 24
Effective Range of the Remote Control 24
Loading Batteries into the Remote Control 25
Inputting Text 26
Operating Multiple Projectors with the Remote Control 26
Positioning the Projector 28
Projection Mode 28
Relationship Between the Projection Distance and the Screen Size 29
Connecting Equipment to the Projector 30
Connecting a Computer 30
Connecting AV Equipment 32
Connecting an External Speaker 33

2. Projecting an Image

Basic Operations for Using the Projector 35
Turning On the Projector 35
Projecting an Image 36
Turning Off the Projector 38
Adjusting the Projected Image 39
Adjusting the Angle of the Projection 39
Adjusting the Focus 39
Adjusting for Keystone Distortion 40
Reducing the Size of the Projected Image 41
Operations while Projecting Images 43
Adjusting the Volume of the Speaker 43
Switching the Sound Quality 43
Enlarging the Image 44
Temporarily Blanking the Image and Muting the Audio 45
Freezing the Image 45
Switching the Lamp Mode 45
Using the Presentation Timer 46

3. Projecting Images from a USB Memory Device or Digital Camera

Requirements for Projecting Images from a USB Device 47
How to Project Images from USB Memory Device 49
Connecting the USB Device 49
Projecting Images from a USB Memory Device 49
Controlling the Projected Image 50
Disconnecting the USB Device 51
Converting Presentation Files to JPEG Files Using JPEG Conversion Tool 52
How to Use JPEG Conversion Tool 52
Converting Presentation Files to JPEG Files 53

4. Useful Functions

Projecting Images in a Slide Show 55
Projecting a Slide Show at a Specified Time 55
Customizing a Slide Show 59
Specifying the Sound Quality 63

Setting the Sound Quality for Giving a Presentation..... 63
Setting the Sound Quality for Playing Music..... 63

5. Using the Projector via a Network

Before Connecting to a Network..... 65
Connecting an Ethernet Cable..... 65
Precautions for Using a Wireless LAN..... 66
Connecting the Projector to a Network..... 67
Opening Network Setting Wizard..... 68
Configuring the Wired LAN Settings..... 68
Configuring the Wireless LAN Settings for Infrastructure Mode..... 69
Configuring the Wireless LAN Settings for Ad Hoc Mode..... 71
Projecting a Computer's Screen via a Network..... 72
How to Use QuickProjection..... 72
Projecting a Computer's Screen Using QuickProjection..... 73
Using the Server Function..... 75
Using the Projection Server Function..... 76
Using the DLNA Server Function..... 78
Projecting Files that Are Stored on the Server..... 78
Projecting Images Using DLNA-Compatible Devices..... 81
Preparation..... 81
Projecting Images from DLNA-Compatible Devices..... 81

6. Using the Interactive Function (RICOH PJ WX4141NI only)

Preparations for Using the Interactive Function..... 83
Enabling Interactive Mode..... 84
Registering the Computer USB Adapter..... 85
Enabling the Projector to Recognize the Electronic Pen..... 88
Installing RICOH PJ Interactive Software..... 90
Using the Electronic Pen..... 92
Electronic Pen Parts and Their Functions..... 92
How to Use the Electronic Pen..... 93
Installing a Rechargeable Battery into the Electronic Pen..... 95
Recharging the Electronic Pen..... 97
When You Cannot Use the Interactive Function..... 98

When the Projected Screen Cannot Be Operated As Wanted..... 100

7. Changing the Projector Settings

Viewing the Menu Screen..... 101
Changing the Settings..... 103
Restoring All the Settings to Their Defaults..... 105
Image Adjustment Menu..... 106
Display/Sound Settings Menu..... 110
Energy Saving Settings Menu..... 114
Default Settings 1 Menu..... 116
Default Settings 2 Menu..... 118
USB Settings Menu..... 121
Settings..... 121
Display Status..... 122
Network Settings Menu..... 123
Wired LAN..... 123
Wireless LAN..... 124
LAN Common..... 127
Projector ID..... 129
Setup Wizard..... 130
Display Status..... 130
Network Application Settings Menu..... 131
Administration Tools..... 131
Security..... 133
Server..... 134
Firmware Update..... 136
Display Status..... 136
Display Status..... 137

8. Troubleshooting

Indicator Display List..... 139
Common Problems..... 142
Accessing the Online Knowledge Base..... 146

9. Maintenance

Operating Precautions..... 147

Cleaning the Projector....149
Cleaning the Air Filter....149
Cleaning the Projection Window....150
Cleaning the Projector....151
Replacing the Lamp....152
Managing the Projector Using Projector Management Utility....156
Installing Projector Management Utility....156
Settings Required to Use Projector Management Utility....157
Starting Projector Management Utility....157
Managing the Projector Using Web Image Monitor....159
Displaying Web Image Monitor....159
About Browse Mode and Edit Mode....160
Login to Edit Mode....161
Controlling and Monitoring the Projector Using Crestron RoomView....162
Displaying Crestron WebUI....162
Using Crestron WebUI....163
Consumables....166

10. Appendix

Specifications for the Projector....167
List of Compatible Signals....169
Video Input....169
Y/Pb/Pr Input....169
Computer Input....170
HDMI Input....171
3D Format....172
Specifications for Ports....174
Computer In Port....174
Control Port....175
Information....177
Copyrights....177
Updating the Firmware....177
Where to Inquire....177
Trademarks....178

INDEX 181

Introduction

Copyrights to Images

When projecting images using the projector, be careful not to infringe the copyright of protected materials.

The following are examples that may infringe the copyright of protected materials.

- Broadcasting images or movies for commercial purposes
- Modifying images or movies using functions such as freeze, magnify, or zoom to broadcast images for commercial purposes or public viewing
- Varying the aspect ratio of images or movies using a function that changes the screen size to broadcast images for commercial purposes or public viewing

Important

In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your office products.

Notes to Users Viewing 3D Images

Pay attention to the following points when viewing images using 3D glasses with the projector:

- You need 3D glasses to view 3D images. The projector uses DLP Link technology to synchronize with 3D glasses. You need to use the optional 3D glasses that support DLP Link (PJ 3D Glasses Type 2).
- How 3D images are viewed may vary according to the individual.
- Do not use 3D glasses for viewing any material other than 3D images.
- Before viewing 3D images, make sure to read the manuals provided with your 3D glasses and 3D compatible content.
- Avoid viewing 3D images for a long period of time. Take a break of 15 minutes or longer after every hour of viewing.
- If you feel sick while viewing 3D images, stop viewing them. If you continue to feel sick, consult a doctor.

- When viewing 3D images in a room where an LED lighting system or fluorescent lights are used, you may feel that the light in the room flickers. If this is the case, dim the lights until you do not notice any flickers, or turn off the lights.
- If you or any member of your family has a history of light-sensitive seizures, consult a doctor before viewing 3D images.
- To view 3D images, sit in front of the screen so that your eyes are parallel and level with the screen.
- Viewing 3D images from a place that is too close to the screen may result in eye strain. The distance between the screen and you should be at least three times the height of the screen.
- Adult supervision is required for children using 3D glasses.
- Viewing 3D images is not recommended for children under 6 years old. It may negatively affect development of their vision. Consult a doctor before using 3D glasses.

Manuals Provided with the Projector

Manuals for the Projector

Read this manual carefully before you use the projector.

Refer to the manuals that are relevant to what you want to do with the projector.

Important

- **The manuals are provided in various formats.**
- **Adobe® Acrobat® Reader®/Adobe Reader must be installed in order to view the manuals as PDF files.**

Read This First

Provides information about safe usage of the projector.

To avoid injury and prevent damage to the projector, be sure to read the section of this manual entitled Safety Information.

Ultra Short Throw Projector Setting Guide

Provides basic information about how to install the projector.

Start Guide

Provides basic information about how to install the projector and how to project images. The contents of this manual are a summary of Operating Instructions.

Start Guide (Interactive Function) (RICOH PJ WX4141NI only)

Provides an overview of the interactive function and the setup procedure to use it. The contents of this manual are a summary of Operating Instructions.

Operating Instructions

Provides information about how to install the projector, how to project images using the projector, and how to configure the projector. It also provides information about troubleshooting and maintenance.

Operating Instructions (Interactive Function) (RICOH PJ WX4141NI only)

Provides information about how to use RICOH PJ Interactive Software.

Note

- The CD-ROM includes only the English manual. For other languages, download the latest version from the website.
- The following software products are referred to using general names:

Product name	General name
RICOH JPEG Conversion Tool Type A	JPEG Conversion Tool

How to Read This Manual

Symbols

This manual uses the following symbols:

Important

Indicates points to pay attention to when using the projector.

Note

Indicates supplementary explanations of the projector's functions, and instructions on resolving user errors.

[ ]

Indicates the names of buttons on the control panel and remote control. It also indicates items displayed on the menu screens.

Region A (mainly Europe and Asia)

Region B (mainly North America)

Differences in the functions of Region A and Region B models are indicated by two symbols. Read the information indicated by the symbol that corresponds to the region of the model you are using. For details about which symbol corresponds to the model you are using, see page 12 "Model-Specific Information".

Notes

Contents of this manual are subject to change without prior notice.

Two kinds of size notation are employed in this manual.

Some illustrations in this manual might be slightly different from the machine.

Certain options might not be available in some countries. For details, please contact your local dealer.

Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

Model-Specific Information

This section explains how you can identify the region your projector belongs to.

There is a label on the rear of the projector, located in the position shown below. The label contains details that identify the region your projector belongs to. Read the label.

CZE143

The following information is region-specific. Read the information under the symbol that corresponds to the region of your projector.

Region A (mainly Europe and Asia)

If the label contains the following, your projector is a region A model:

- CODE XXXX -27

Region B (mainly North America)

If the label contains the following, your projector is a region B model:

- CODE XXXX -17

Note

- Dimensions in this manual are given in two units of measure: metric and inch. If your projector is a Region A model, refer to the metric units. If your projector is a Region B model, refer to the inch units.

1. Preparations for Using the Projector

This chapter explains the names and functions of the different parts of the projector and remote control, and how to use them. It also explains how to position the projector and how to connect it to other equipment.

Precautions for Using the Projector

⚠WARNING

- Do not use any power sources other than those that match the specifications shown in this manual. Doing so could result in fire or electric shock.

⚠WARNING

- The supplied power cord is for use with this machine only. Do not use it with other appliances. Doing so could result in fire or electric shock.

⚠WARNING

- It is dangerous to handle the power cord plug with wet hands. Doing so could result in electric shock.

⚠WARNING

- Do not look into the projection window or vent when the machine is on. The bright light may damage your eyes. Be especially careful in an environment with children.

⚠CAUTION

- Do not place low heat resistant material near the exhaust vents. Hot air may come from the exhaust vents, resulting in damage to the machine or an accident.

⚠CAUTION

- Do not place the power cord and connection cable in a way that might cause someone to trip and fall. The machine might fall over and cause an injury.

⚠CAUTION

- Push the power plug all the way into the power outlet. Do not use a power outlet with a loose connection. Doing so may result in heat buildup. Plug the power cord in the correct direction into the base. If they are not plugged in correctly, it could result in smoke, fire, or electric shock.

⚠CAUTION

- When disconnecting the power cord from the wall outlet, always pull the plug, not the cord. Pulling the cord can damage the power cord. Use of damaged power cords could result in fire or electric shock.

⚠CAUTION

- Do not block the projection light when it is on. If you do so, the part that is blocking the projection light may get quite hot and deform, deteriorate or cause a burn or fire. The reflected light may make the projection window hot and cause a machine failure. To temporarily suspend projection, select the AV mute function. To suspend longer, turn off the machine.

⚠CAUTION

- Do not increase the volume unless you are listening while increasing the volume. Also, lower the volume before turning off the power, because a loud sound may be emitted when the power is turned on and cause hearing damage.

- Power Source
  - Region A (mainly Europe and Asia)

    220–240 V, 1.7 A or more, 50/60Hz
  - Region B (mainly North America)

    120 V, 3.7 A or more, 60Hz

  Please be sure to connect the power cord to a power source as above.

Main Functions

The projector features the following functions that you can use.

Image eco function

The projector switches the lamp power automatically by detecting the brightness of the image signals. This function is useful for energy saving.

Start on input detection

The projector starts projection automatically if the image signals are input even while in standby.

Auto keystone function

The projector automatically adjusts the shape of the projected image according to the angle at which the projector is positioned.

AV Mute/Freeze

Pressing the [AV Mute] button mutes the sound and blanks the screen. Pressing the [Freeze] button freezes the image temporarily.

Magnify/Zoom

Pressing the [Magnify] button enlarges the projected image. Pressing the [Zoom] button reduces the projected image.

Presentation timer function

Pressing the [Timer] button displays the countdown timer on the projection screen. You can check the elapsed time on the projection screen.

Wall color mode

You can adjust the hue of the image in accordance with the color of the wall on which it is projected.

Password setting/Key lock

You can specify a password for the projector to limit the people that can use it. The buttons on the control panel can be disabled with the key lock setting to prevent misoperation.

Administrator authentication

Enable administrator authentication so that only the administrator can change the security settings. This improves the security of the projector because general users cannot change the settings.

User logo function

The projector can project a registered logo or image when there is no signal or when it is starting up.

Presentations without a computer

The projector can project JPEG and MPEG files stored on a USB memory device or a digital camera.

It is possible to convert PowerPoint materials to JPEG format using JPEG Conversion Tool and then project them using the projector.

QuickProjection

QuickProjection is an application that is provided with the projector and is used for connecting the projector and a computer to project images.

Checking the Accessories

The projector is provided with the following accessories. Make sure that everything is included in the package.

If anything is missing or damaged, contact your sales representative or service representative.

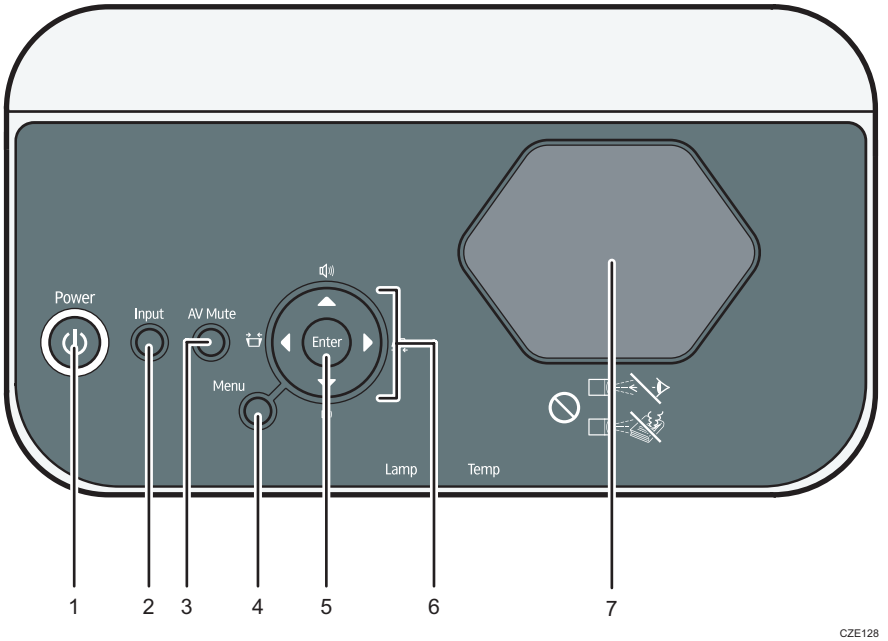
- Read This First
- Ultra Short Throw Projector Setting Guide
- Start Guide
- Start Guide (Interactive Function) (RICOH PJ WX4141NI only)
- Remote control
- AAA battery LR03 × 2
- CD-ROM
- RGB cable
- Power cord
- Warranty card
- Carrying bag
- Computer USB adapter (RICOH PJ WX4141NI only)
- Electronic pen (RICOH PJ WX4141NI only)
- Electronic pen charge cable (RICOH PJ WX4141NI only)
- AAA Ni-MH rechargeable batteries × 2 (RICOH PJ WX4141NI only)

Note

- The bundled accessories may vary depending on the location that this projector was purchased.
- Use only the RGB cable, power cord, electronic pen charge cable, and AAA Ni-MH rechargeable batteries provided with the projector.
- The various applications are on the provided CD-ROM. For instructions about using the applications, see page 52 "How to Use JPEG Conversion Tool", page 72 "How to Use QuickProjection", page 90 "Installing RICOH PJ Interactive Software", and page 156 "Managing the Projector Using Projector Management Utility".

Projector Parts and Their Functions

Control Panel (Top View)



1. **[Power] button**

   Turns the projector on and off. You can confirm the status of the projector with the indicator.

   - On: Power is on.
   - Off: Power is off.
   - Flashing at long intervals: Standby.
   - Flashing at short intervals: Starting up or cooling.

2. **[Input] button**

   Switches the signal input. For details about how to switch the input signal, see page 36 "Projecting an Image".

3. **[AV Mute] button**

   Temporarily blanks the screen and mutes the audio

4. **[Menu] button**

   Displays the menu screen. Press it again to close the menu screen.

5. **[Enter] button**

   Enters the selected item or mode.

6. **Arrow buttons**

   The [◀] and [▶] buttons are used to adjust the keystone distortion. The [▲] and [▼] buttons are used to adjust the volume. These buttons are also used to operate the menu screen and the value bar.

7. **Projection window**

   Enlarges and projects the image.

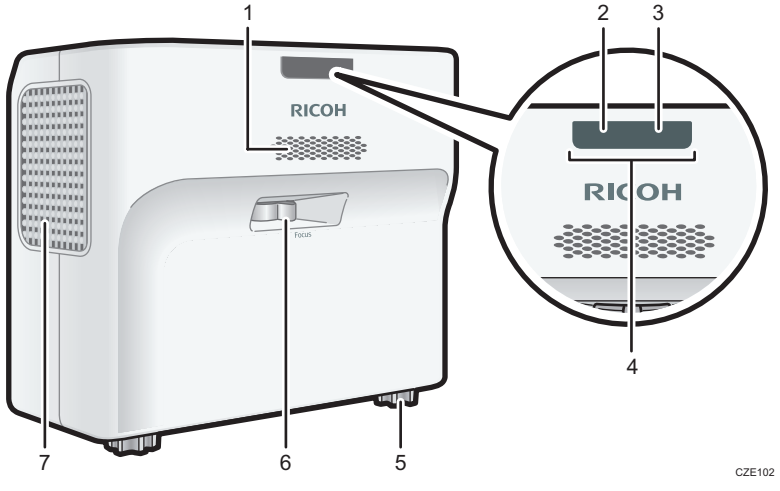
Note

- The top of the projector is covered with a protective film when it is shipped. Remove the film before using the projector.

Front and Left-Side View

⚠CAUTION

- Do not obstruct the machine's vents. Doing so risks fire caused by overheated internal components.



1. **Speaker**

   Outputs the audio input from an external device.

2. **Lamp indicator**

   Shows the status of the lamp. For details, see page 139 "Indicator Display List".

3. **Temp indicator**

   Shows the status of the temperature inside the projector. For details, see page 139 "Indicator Display List".

4. **Remote control receiver**

   Receives the signal from the remote control.

5. **Adjustable feet**

   Adjusts the angle of the projection.

6. **Focus lever**

   Adjusts the focus of the image.

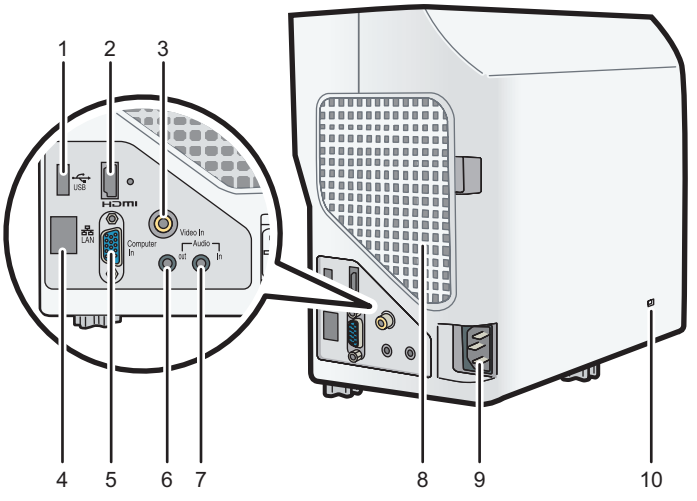
7. **Exhaust vents**

   Releases hot air from inside the projector.

Rear and Right-Side View

⚠CAUTION

- Do not obstruct the machine's vents. Doing so risks fire caused by overheated internal components.



1. **USB port**

   For connecting a USB memory device or USB device cable.

2. **HDMI port**

   For inputting HDMI signals from a computer or video player.

3. **Video In port**

   For inputting image signals from a video player.

4. **LAN port**

   For connecting an Ethernet cable.

5. **Computer In port (Y/Pb/Pr)**

   For inputting RGB signals from a computer or component image signals (Y/Pb/Pr) from a video player.

6. **Audio Out port**

   For outputting audio signals to an external speaker.

7. **Audio In port**

   For inputting audio signals from a computer or video player.

8. **Intake vents**

   For circulating air from the outside to cool the projector.

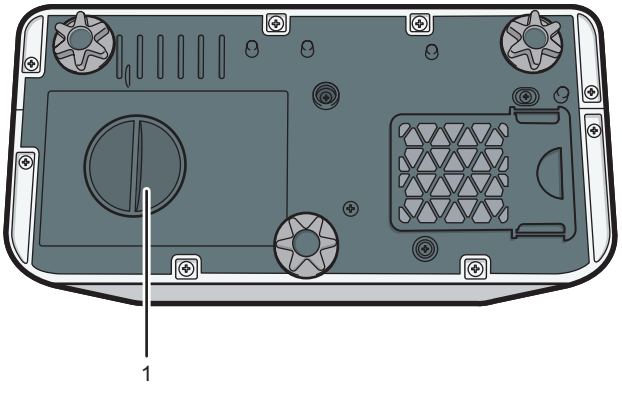
9. **AC In socket**

   For connecting the power cord set provided with the projector.

10. **Security slot (Kensington slot)**

    For connecting an anti-theft cable.

Bottom View

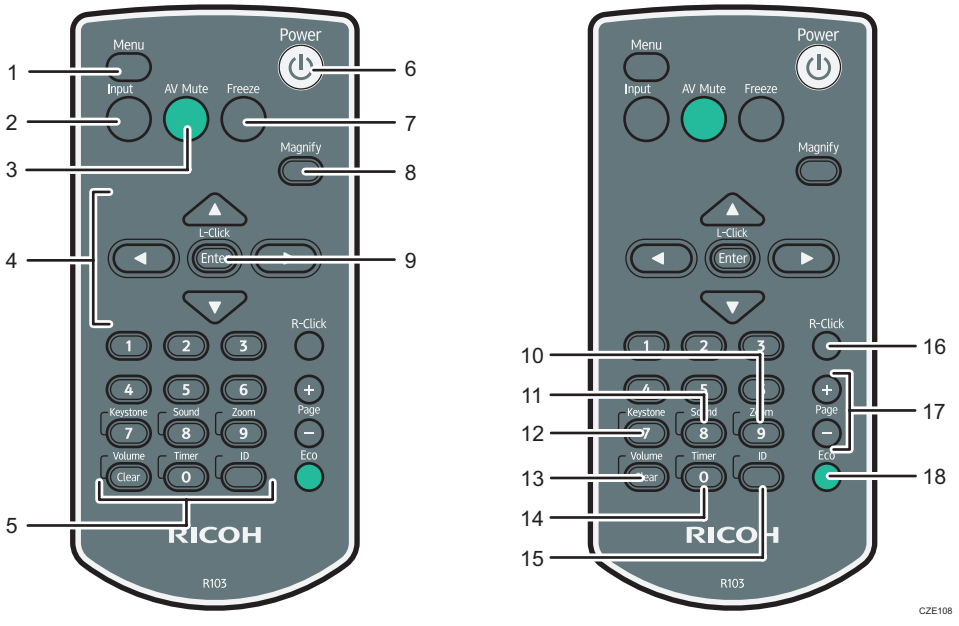


CZE105

1. **Lamp cover**

   Remove to replace the lamp.

Remote Control Parts and Their Functions



1. **[Menu] button**

   Displays the menu screen. Press it again to close the menu screen.

2. **[Input] button**

   Switches the signal input. For details about how to switch the input signal, see page 36 "Projecting an Image".

3. **[AV Mute] button**

   Temporarily blanks the screen and mutes the audio. For details, see page 45 "Temporarily Blanking the Image and Muting the Audio".

4. **Arrow buttons**

   Used to operate the menu screen and the value bar.

5. **Number buttons**

   Used to enter numbers.

6. **[Power] button**

   Turns the projector on and off.

7. **[Freeze] button**

   Temporarily freezes the image. For details, see page 45 "Freezing the Image".

8. **[Magnify] button**

   Displays the magnification ratio bar. Press it, and then specify the magnification ratio using the [◀] and [▶] buttons. For details, page 44 "Enlarging the Image".

9. **[Enter] button**

   Enters the selected item or mode.

10. **[Zoom] button**

    Displays the digital zoom bar. Press it, and then adjust the size of the projected image using the [◀] and [▶] buttons. For details, see page 41 "Reducing the Size of the Projected Image".

11. **[Sound] button**

    Displays the sound quality selection screen. Press it, and then select the sound quality using the [◀] and [▶] buttons. For details, see page 43 "Switching the Sound Quality".

12. **[Keystone] button**

    Displays the keystone adjustment bar. Press it, and then adjust the keystone distortion using the [◀] and [▶] buttons. For details, page 40 "Adjusting for Keystone Distortion".

13. **[Volume] button**

    Displays the volume control bar. Press it, and then adjust the volume of the speaker using the [▲] and [▼] buttons. For details, see page 43 "Adjusting the Volume of the Speaker".

14. **[Timer] button**

    Displays the presentation timer. For details, see page 46 "Using the Presentation Timer".

15. **[ID] button**

    Registers the remote control ID. For details, see page 26 "Operating Multiple Projectors with the Remote Control".

16. **[R-Click] button**

    This button is not used.

17. **[Page] buttons**

    Changes the image while projecting images from a USB device or a server. Press [+] to go to the next page. Press [−] to go to the previous page.

18. **[Eco] button**

    Switches the lamp power level. For details, see page 45 "Switching the Lamp Mode".

How to Use the Remote Control

You can use the remote control to turn the projector on and off, and to change the signal of the image being input and projected. You can also enlarge or reduce the image and mute the audio.

Important

- **Note the following precautions when using the remote control:**
  - **Do not drop or hit the remote control.**
  - **Do not place the remote control in a place that is very hot or very humid.**
  - **Do not get the remote control wet. Also, do not place it on anything that is wet.**

Effective Range of the Remote Control

Point the remote control at the remote control receiver on the projector to use it.

The effective range of the remote control is about 4.5 meters (14.7 feet) from the receiver and at an angle of about 15 degrees to the remote control receiver on the projector.

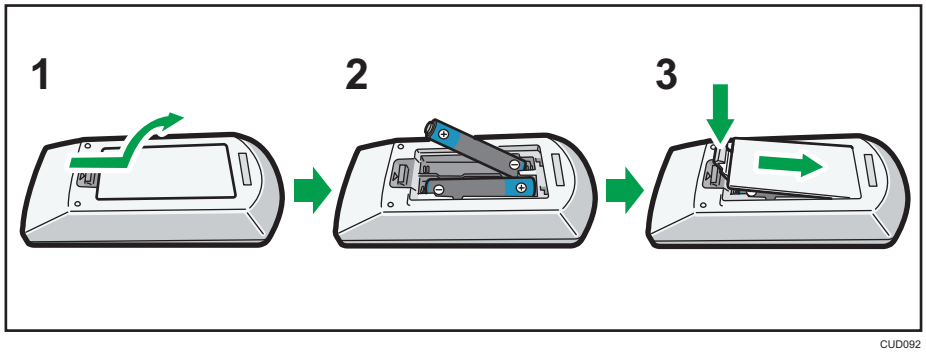
Note

- The remote control may not be effective in some areas and in some conditions. If this happens, point the remote control at the projector and try it again.
- The remote control may not work if the remote control receiver on the projector is exposed to sunlight, fluorescent light, or strong light.

Loading Batteries into the Remote Control

⚠WARNING

- For safe operation, follow the warnings below regarding the batteries. If you use the batteries incorrectly, it may result in fire or injury due to batteries leaking or exploding.
  - Do not use batteries other than the ones specified.
  - Do not mix and use batteries that are different types or that are new and old.
  - Correctly insert batteries according to the polarity (+/−).
  - Do not charge non-rechargeable batteries.
  - Do not heat or throw the batteries into fire or water.
  - Do not connect the positive and negative terminals on a battery with a wire.
  - Remove the batteries that are past their suggested use period or that are depleted.
  - Remove the batteries when they will not be used for extended periods.
  - Keep the batteries out of the reach of children. Children may swallow or choke on the batteries. If this happens, contact a doctor immediately.



CUD092

1. **Remove the battery cover from the remote control.**
2. **Insert the batteries.**

   Note the direction of the positive and negative terminals when inserting the batteries.
3. **Close the battery cover.**

Note

- Replace the batteries if the remote control does not work or if the effective distance becomes too narrow.

Inputting Text

Use the keyboard that is displayed on screen to input text on the setting screen.

1. **Select a character using the [▲], [▼], [◀], and [▶] buttons.**

   The selected character is highlighted in orange.

2. **Press the [Enter] button.**

   The selected character appears in the text area.

3. **After inputting all the characters, select [OK].**

4. **Press the [Enter] button.**

Note

- You can also use the number buttons on the remote control to input numbers.

Operating Multiple Projectors with the Remote Control

You can operate multiple projectors with a single remote control. It is possible to operate a maximum of four projectors. To operate the projector with the remote control, you must assign the same ID number to the projector and remote control. Projectors that can be operated by the remote control supplied with this projector are RICOH PJ WX4141/WX4141N/WX4141NI.

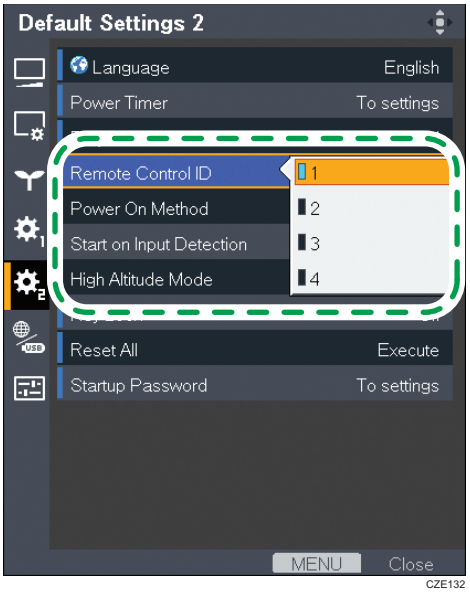
Use the following procedure to assign the same ID number to the projector and the remote control.

Assigning an ID number to the projector

To operate multiple projectors with a single remote control, assign a different ID number to each projector. Use the buttons on the control panel to perform the following procedure.

1. **Press the [Menu] button.**
2. **Select [Default Settings 2], and then press the [▶] button.**
3. **Select [Remote Control ID], and then press the [Enter] button.**

4. **Select the ID number to assign to the projector, and then press the [Enter] button.**



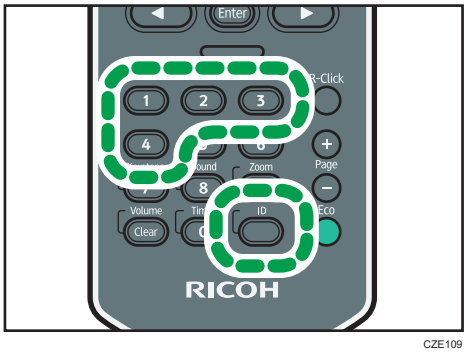
CZE132

5. **Select [OK] on the confirmation screen, and then press the [Enter] button.**
6. **Press the [Menu] button to close the menu screen.**

Changing the remote control's ID number

You can switch the ID number of the remote control to match the ID number of a projector. You can check the ID numbers of projectors in [Remote Control ID] in [Default Settings 2].

1. **Press and hold the [ID] button, and then press the number button that is the ID number of the projector you want to operate for at least three seconds.**



CZE109

After the ID number of the remote control is switched, you can operate the projector with the remote control.

Positioning the Projector

When positioning the projector, place it so that the projector's rear side faces the screen. Make sure the projector and the screen are parallel to each other.

Adjust the distance between the projector and the screen according to the size of the projected image. For details, see page 29 "Relationship Between the Projection Distance and the Screen Size".

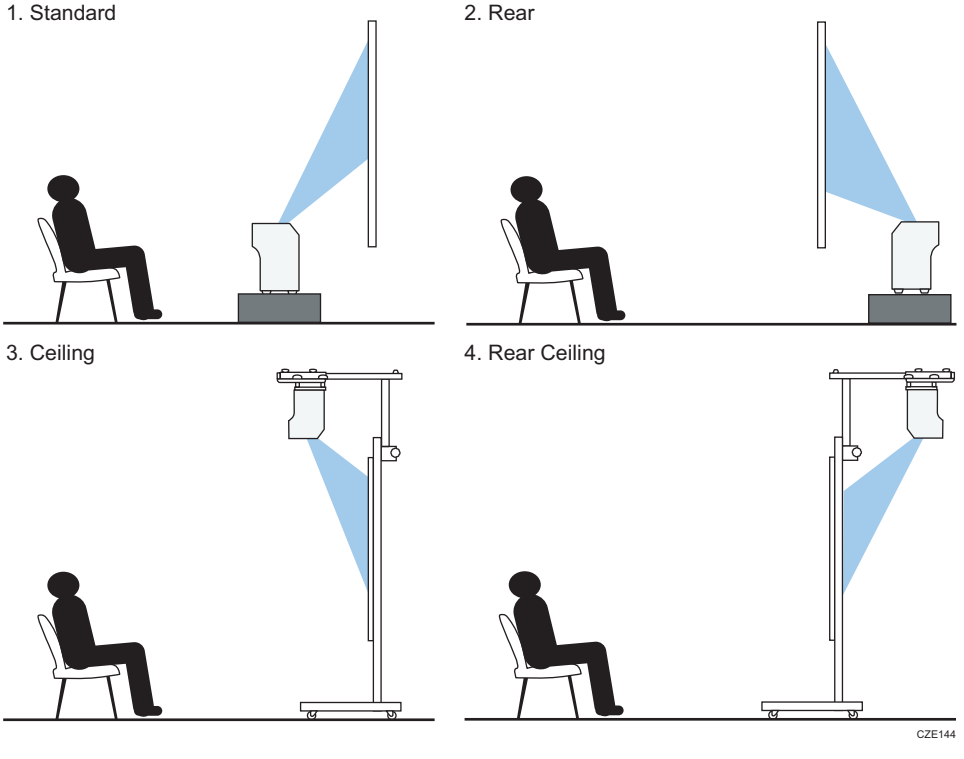
Projection Mode

⚠WARNING

- If a machine is incorrectly installed on a wall or ceiling, it may fall down and cause an injury. Contact your sales or service representative if you want to install a machine on a wall or ceiling.

You can position the projector in one of four ways.

Select the setting according to the position of the projector in [Projection Mode] under [Default Settings 2]. For details, see page 118 "Default Settings 2 Menu".



1. **Standard**

   The projector is placed in front of a screen onto which the images are projected.

2. **Rear**

   The projector is placed behind a screen onto which the images are projected.

3. **Ceiling**

   The projector is mounted on the ceiling in front of a screen onto which the images are projected.

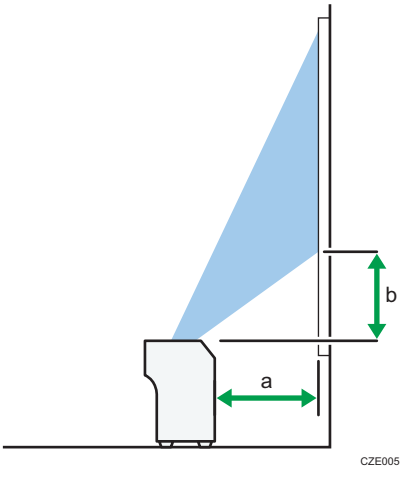
4. **Rear Ceiling**

   The projector is mounted on the ceiling behind a screen onto which the images are projected.

Relationship Between the Projection Distance and the Screen Size

The size of the projected image varies according to the distance from the projector to the screen.

Refer to the following table to position the projector in a suitable position. The projection screen sizes presented in the table are for a full size image without keystone adjustment.



Projection screen size	Projection distance (a)	Projection height (b)
48 inches	12 cm (4.6 inches)	9 cm (3.6 inches)
60 inches	17 cm (6.5 inches)	12 cm (4.5 inches)
80 inches	25 cm (9.8 inches)	16 cm (6.1 inches)

Connecting Equipment to the Projector

⚠CAUTION

- Do not place the power cord and connection cable in a way that might cause someone to trip and fall. The machine might fall over and cause an injury.

Various equipments can be connected to the projector.

Turn off the power to any equipment before connecting it to the projector. Be sure to read the manual for the applicable equipment before connecting it to the projector.

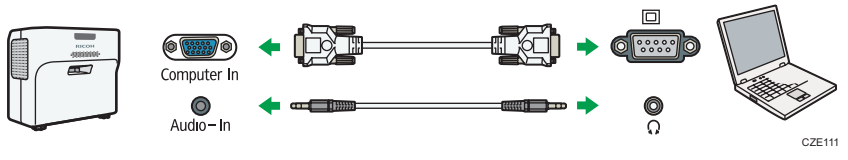
Connecting a Computer

Note

- Some computers cannot be connected to the projector. Before connecting a computer to the projector, check the output terminals and signal compatibility.

Connecting to the RGB out port

Connect an RGB cable to the Computer In port of the projector and to the RGB out port of a computer. To output audio from the speaker on the projector, connect an audio cable to the Audio In port of the projector and to the audio out port of a computer.



Note

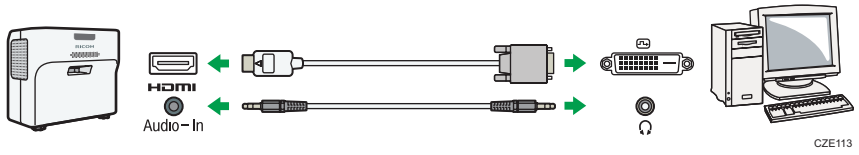
- Use the RGB cable provided with the projector.

Connecting to the HDMI port

Connect an HDMI cable to the HDMI ports of the projector and the computer.

Connecting to the DVI out port

To input a DVI signal to the projector, connect a DVI-to-HDMI cable to the HDMI port of the projector and to the DVI out port of a computer. To output audio from the speaker on the projector, connect an audio cable to the Audio In port of the projector and to the audio out port of a computer.



CZE113

Note

- You can use a DVI-to-HDMI conversion adapter instead of a DVI-to-HDMI cable.

Connecting via a network using a wired LAN

Connect an Ethernet cable to the LAN port of the projector and to a network device such as a hub. For details about how to connect an Ethernet cable, see page 65 "Connecting an Ethernet Cable". To use the projector via a network, you must specify settings such as the IP address. For details, see page 67 "Connecting the Projector to a Network".

CZE114

Note

- Use an Ethernet cable that is shielded.

Connecting via a network using a wireless LAN

The projector is equipped with a wireless connectivity function. Before using a wireless LAN, see page 66 "Precautions for Using a Wireless LAN". To use the projector via a network, you must specify settings such as the IP address. For details, see page 67 "Connecting the Projector to a Network".

CZE115

Connecting AV Equipment

Use a cable that supports the signal being input when connecting AV equipment.

Connecting to the HDMI port

Connect an HDMI cable to the HDMI ports of the projector and the AV equipment.

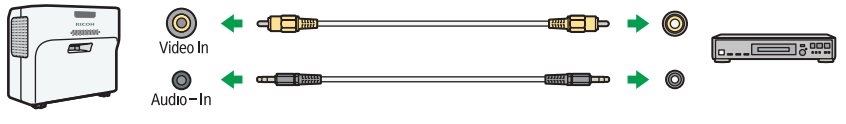
CZE116

Note

- Some devices may not operate properly when connected using HDMI.
- Use only an HDMI cable that has the HDMI logo. To input 1080p image signals, use a high-speed HDMI cable. A conventional HDMI cable may not work properly.

Connecting to the video out port

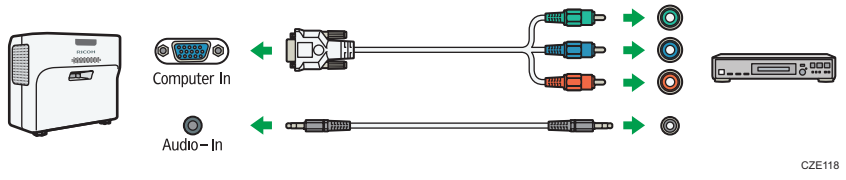
Connect a video cable to the Video In port of the projector and to the video out port of AV equipment. To output audio from the speaker on the projector, connect an audio cable to the Audio In port of the projector and to the audio out port of AV equipment.



CZE117

Connecting to the Y/Pb/Pr out port

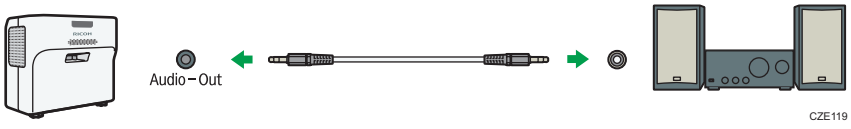
Connect a D-sub to component video cable to the Computer In port of the projector and to the Y/Pb/Pr out port of the AV equipment. To output audio from the speaker on the projector, connect an audio cable to the Audio In port of the projector and to the audio out port of AV equipment.



CZE118

Connecting an External Speaker

You can output the audio signal to an external speaker. To connect an external speaker, connect an audio cable to the Audio Out port of the projector and the audio in port of an external speaker.



Note

- There is no sound output from the projector's speaker when an external speaker is connected.
- You can adjust the sound output from the external speaker by using the [Volume] button.

2. Projecting an Image

This chapter explains the procedure for projecting an image.

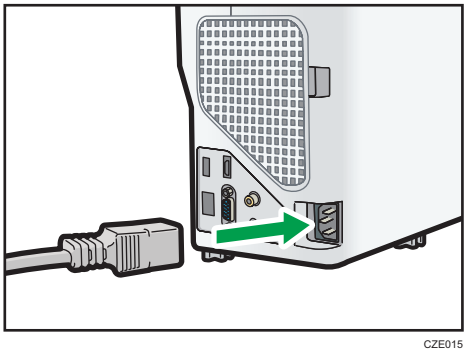
Basic Operations for Using the Projector

Note

- If [Key Lock] in [Default Settings 2] is specified as [On], you cannot operate the projector from its control panel. Use the remote control.
- If you press a button that is disabled, the projector beeps and the "Invalid operation." or "This function cannot be used on this product." message appears on the screen.
- If [Beep] in [Default Settings 1] is specified as [Off], the projector does not beep.

Turning On the Projector

1. **Insert the connector of the power cord set into the AC In socket on the projector.**



CZE015

2. **Insert the power plug into a power outlet.**

   When [Power On Method] in [Default Settings 2] is specified as [Auto.], the projector turns on in this step.

3. **Press the [Power] button.**

   The projector beeps and the indicator flashes blue.

   The start-up screen is displayed.

   To project an image from the connected equipment, see page 36 "Projecting an Image".

When the projector is turned on for the first time after it is purchased, the start menu appears. Specify the display language, lamp power level, and network settings. For details, see page 36 "When the start menu is displayed".

Note

- The password input screen is displayed if a password for the projector is specified in [Startup Password] under [Default Settings 2]. Enter a password.
- The start-up screen closes shortly after appearing. You can specify that the start-up screen not appear in [Start-up Screen] under [Default Settings 1].

When the start menu is displayed

When the projector is turned on for the first time after it is purchased, specify the display language, lamp power level, and network settings.

1. **Select the display language, and then press the [Enter] button.**
2. **Select the lamp power level, and then press the [Enter] button.**
3. **Specify the network settings on Network Setting Wizard.**

   To skip the network settings, select [Cancel]. For details about how to use Network Setting Wizard, see page 67 "Connecting the Projector to a Network".

Note

- The display language can also be changed in the menu screen. For details, see page 118 "Default Settings 2 Menu".
- The lamp power level can also be changed using the remote control. For details, see page 45 "Switching the Lamp Mode".
- You can also open Network Setting Wizard in the menu screen. For details, see page 68 "Opening Network Setting Wizard".
- The start menu is only displayed the first time the projector is used. However, the start menu is displayed after [Reset All] in [Default Settings 2] is executed.

Projecting an Image

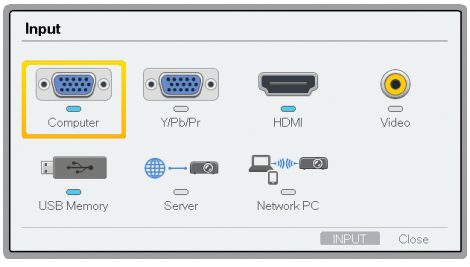
1. **Turn on the equipment that is connected to the projector.**

   To project the image of an AV equipment, press the play button on the AV equipment.

   To project a laptop computer's screen, switch the computer's image output. For details, see page 37 "When projecting the screen of a laptop computer".

   The input signal is detected automatically and the image is projected.
2. **If an image is not projected automatically, press the [Input] button.**

3. **Select an input signal, and then press the [Enter] button.**



Note

- If [Auto Input Search] in [Default Settings 1] is specified as [On], pressing the [Input] button changes the input to one that is different from the image signal being input.
- The standby screen for the network input is displayed if the signal is lost or there is no signal being input from the connected equipment. Check that the equipment is turned on and that it is properly connected to the projector.
- If the projector does not support the input signal, a "Unsupported signal" message is displayed.
- The brightness of the image may vary temporarily because the lamp may automatically adjust to maintain its condition.

When projecting the screen of a laptop computer

When connecting a laptop computer to the projector, switch the computer's image output.

In Windows operating systems, the image output can be switched with a function key. While pressing and holding the [Fn] key, press the key, the key, or the LCD/VGA function key.

Examples of various computers

Computer brand	Key combination
MSI	[Fn] + [F2]
Everex, MITSUBISHI, NEC, Panasonic, SOTEC	[Fn] + [F3]
Gateway, HP	[Fn] + [F4]
acer, SHARP, SOTEC, TOSHIBA	[Fn] + [F5]
HITACHI, IBM, lenovo, SONY	[Fn] + [F7]
ASUS, DELL, EPSON, HITACHI	[Fn] + [F8]
FUJITSU	[Fn] + [F10]

Note

- Depending on the computer, the image may not be projected properly if it is displayed on the computer's LCD display while being projected onto the screen by the projector. If this happens, turn off the computer's LCD display. For details about switching the display, see the manual provided with the computer.

Turning Off the Projector

Important

- **Unplug the power cord if the projector will not be used for an extended period of time.**
- **After disconnecting the power cord, wait at least 1 second before connecting the power cord again. Not doing so may result in a malfunction.**

1. **Press the [Power] button.**

The confirm screen appears.

2. **Press the [Power] button.**

The projector beeps and enters the standby mode.

3. **Disconnect the power cord.**

Note

- After turning the lamp off, wait about five minutes for the lamp to cool before turning the lamp on again. The lamp may not light if it is very hot.
- The projector turns off as soon as the power cord is disconnected (direct power off).
- You can specify the settings for saving energy in standby mode in [Energy Saving Settings]. For details, see page 114 "Energy Saving Settings Menu".

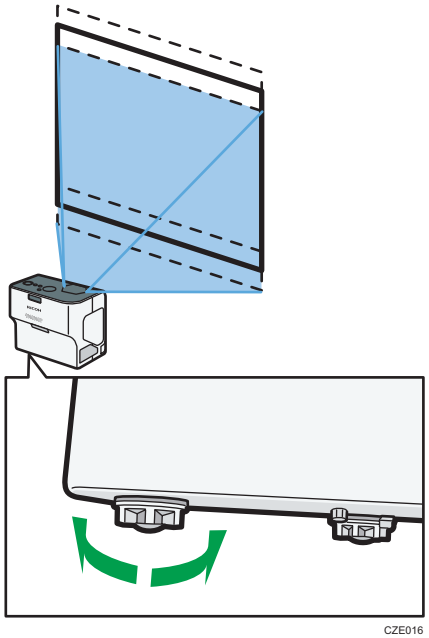
Adjusting the Projected Image

Adjusting the Angle of the Projection

If the height of the projected image does not fit the screen, you can adjust the angle of the projection using the adjustable feet.

1. **Lift the projector.**
2. **Adjust the length of the adjustable feet.**

   Adjust the height of the right and left adjustable feet so the projector is level. If the projector is inclined too much, an error occurs and operation cannot be performed.



CZE016

Note

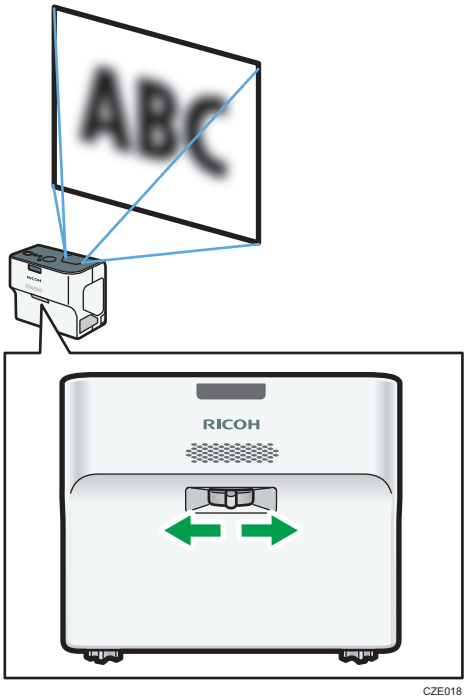
- You do not need to adjust the angle of projection using the adjustable feet if the projector is installed on a wall or ceiling.
- The projector automatically adjusts the projected image for keystone distortion according to the projection angle. If [Auto Keystone] in [Display/Sound Settings] is specified as [Off], manually adjust for keystone distortion. For details, see page 40 "Adjusting for Keystone Distortion".

Adjusting the Focus

Adjust the focus of the projected image.

1. **Move the focus lever to adjust the focus.**

   The shape of the projected image changes slightly when the focus ring is turned.



CZE018

Adjusting for Keystone Distortion

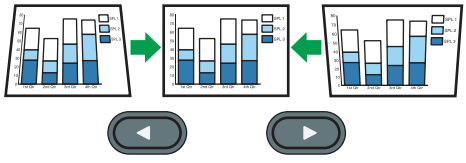
If the projector is placed at an angle, the projected image will be distorted. This is called keystone distortion.

If [Auto Keystone] in [Display/Sound Settings] is specified as [On], the projector automatically adjusts the projected image for keystone distortion according to the projection angle. If this setting is specified as [Off], adjust for keystone distortion using the following procedure.

1. **Press the [Keystone] button.**

   The value bar appears at the bottom of the screen.

2. **Adjust the keystone distortion using the [◀] and [▶] buttons.**



CUD004

Press the [◀] button to decrease the width of the bottom of the projected image. Press the [▶] button to decrease the width of the top of the projected image.

Note

- Some data may be lost or the image quality may be degraded depending on the degree of the keystone adjustment and the type of the image.
- You can manually adjust for keystone distortion even if [Auto Keystone] is specified as [On]. However, if you change the angle of the projector, it is automatically adjusted again.
- The keystone adjustment level stays registered even if the projector is turned off. We recommend that you specify [Auto Keystone] to [Off] if the projector and screen are permanently installed.
- You can also adjust the keystone distortion using the [◀] and [▶] buttons on the control panel.

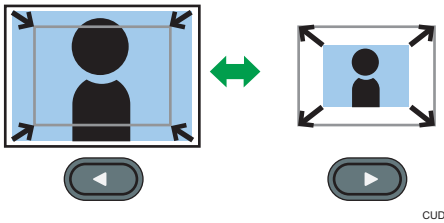
Reducing the Size of the Projected Image

If the projected image is larger than the screen, reduce the size of the image using the [Zoom] button. The image can be reduced by 80 to 100% using the digital zoom function.

1. **Press the [Zoom] button.**

The value bar appears at the bottom of the screen.

2. **Adjust the size of the projected image using the [◀] and [▶] buttons.**



CUD046

Press the [◀] button to reduce the size of the projected image. Press the [▶] button to enlarge the size of the projected image. The image is enlarged until it reaches the original size.

Note

- The image may sometimes be disrupted while it is reduced.

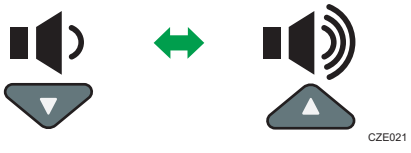
Operations while Projecting Images

Adjusting the Volume of the Speaker

1. **Press the [Volume] button.**

The value bar appears at the bottom of the screen.

2. **Adjust the volume using the [▲] and [▼] buttons.**



Press the [▼] button to decrease the volume. Press the [▲] button to increase the volume.

Note

- You can also adjust the volume of the speaker using the [▲] and [▼] buttons on the control panel.

Switching the Sound Quality

You can select the sound quality of the audio that is playing.

1. **Press the [Sound] button.**

The sound quality selection screen appears at the bottom of the screen.

2. **Select the sound quality using the [◀] and [▶] buttons.**
   - Standard (): Dialog and music are carefully balanced
   - Narration (): This mode is suitable for listening to dialog
   - Music (): This mode is suitable for listening to music

Note

- This function applies to the built-in speaker on the projector only. If you use an external speaker, you cannot change the sound quality with this function.
- The sound quality selection screen also appears when you press the [▲] or [▼] buttons on the control panel or [Volume] button on the remote control.

Enlarging the Image

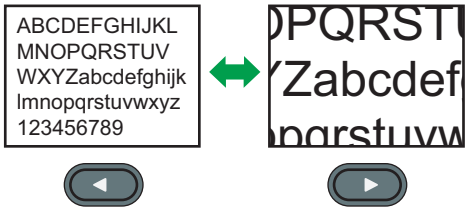
Enlarges and displays a part of the image. The image can be enlarged in a range of 100 to 200%.

The enlarged image becomes grainy due to the digital processing.

1. **Press the [Magnify] button.**

   The value bar appears at the bottom of the screen.

2. **Adjust the magnification ratio using the [◀] and [▶] buttons.**

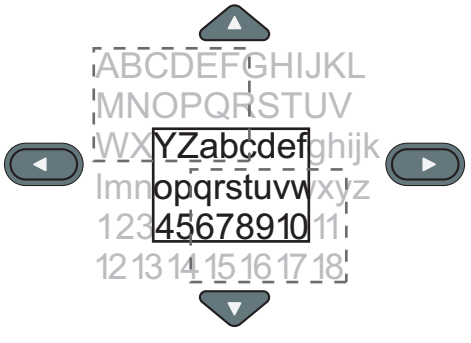
   

   CUD010

   Press the [◀] button to decrease the magnification ratio. Press the [▶] button to increase the magnification ratio.

3. **Press the [Enter] button.**

4. **Move the display position using the [▲], [▼], [◀], and [▶] buttons.**

   CUD012

   To change the magnification ratio, press the [Enter] button, and then repeat Step 2.

5. **To cancel this function, press the [Magnify] button again.**

Note

- The Magnify function is canceled automatically if any operation is performed.

Temporarily Blanking the Image and Muting the Audio

Temporarily blanks the screen and mutes the audio.

This is useful when projecting images from another projector or an OHP.

1. **Press the [AV Mute] button.**

   The image blanks and the audio mutes.

2. **To cancel this function, press the [AV Mute] button again.**

Note

- An icon ( ) appears on the screen when AV mute is used.
- The AV mute function is canceled automatically if any button on the control panel is pressed.
- You can also use the [AV Mute] button on the projector's control panel.

Freezing the Image

Freezes the video or moving image that is being projected.

1. **Press the [Freeze] button.**

   The image freezes.

2. **To unfreeze the image, press the [Freeze] button again.**

Note

- An icon ( ) appears on the screen when freeze is used.
- The Freeze function is canceled automatically if any operation is performed.
- The Freeze function is for freezing the image projected on the screen. To pause the video of the connected equipment, use the pause function of the connected equipment.

Switching the Lamp Mode

You can switch the lamp mode. To save energy, select the eco mode. To make images brighter, select the standard mode.

1. **Press the [Eco] button.**

The mode changes each time the button is pressed.

Note

- You can also change the lamp settings with [Energy Saving Settings]. For details, see page 114 "Energy Saving Settings Menu".
- The image may flicker, depending on the characteristics of the lamp, when you select the eco mode. If this happens, select the standard mode.

Using the Presentation Timer

Displays the timer on the projection screen. This function is useful for time management when you are giving a presentation.

1. **Press the [Timer] button.**

2. **Specify the time period from 1 to 99 minutes using the number buttons.**

   You can also use the [▲] and [▼] buttons to specify the time period.

3. **Select [Start (Small Size)] or [Start (Large Size)], and then press the [Enter] button.**

   You can use two types of timer.

   - Small size: A small timer is displayed in the lower right corner of the projection screen.
   - Large size: A large timer is displayed in the center of the projection screen.

   To stop the countdown, press the [Timer] button, and then select [OK] on the confirmation screen.

   After the time countdown is finished, a message appears and the projector beeps.

Note

- The projector does not beep if [Beep] in [Default Settings 1] is specified as [Off].

3. Projecting Images from a USB Memory Device or Digital Camera

This chapter explains how to project images from a USB memory device or digital camera.

Requirements for Projecting Images from a USB Device

Important

- **It is recommended to back up the data saved to a USB device before using it. The manufacturer is not responsible for any damage due to the loss of data.**
- **Do not disconnect the power plug while the USB device is being accessed. Doing so may cause malfunction or data loss.**
- **The USB devices must support USB 2.0.**
- **The projector supports FAT16 or FAT32 format USB devices. Other forms of USB device are not compatible.**
- **USB memory devices with passwords cannot be used.**

The projector can project still images and videos stored on a USB memory device or a digital camera.

The following still images and videos are supported by the projector:

Still images

Item	Requirement
File extensions	jpg, jpeg, JPG, JPEG
File size	Less than 10 MB
Number of pixels	2 × 2 to 5120 × 5120 pixels
File format	Baseline format

Videos

Item	Requirement
File extensions	mpg, mpeg, MPG, MPEG, m2ts, m2t, M2TS, M2T, m2p, M2P
File size	Less than 2 GB (FAT16) or 4 GB (FAT32)
Number of pixels	320 × 240 to 1280 × 720 pixels

Item	Requirement
Video compression format	MPEG2
Audio compression format	MPEG1/2-Audio Layer2, Linear PCM
Container format	MPEG2-PS, MPEG2-TS
Frame rate	Less than 30 fps
Bit rate	Less than 15 Mbps (recommended)

Note

- The maximum number of files that can be displayed in the list is 512 per folder.
- Characters that can be used for file names and folder names are single-byte letters and numbers and characters used in the language specified in [Language] under [Default Settings 2]. If characters for languages other than the language specified are used, the file name or folder name will not be displayed properly.
- If the total number of characters in the file name and the path exceeds 255, the file cannot appear on the list.
- Data in a folder that is stored six levels or more into a hierarchy cannot be accessed.
- The projector may not be able to project a file whose compression ratio is low.
- For information about which digital cameras can be used with the projector, contact your sales representative or service representative.

How to Project Images from USB Memory Device

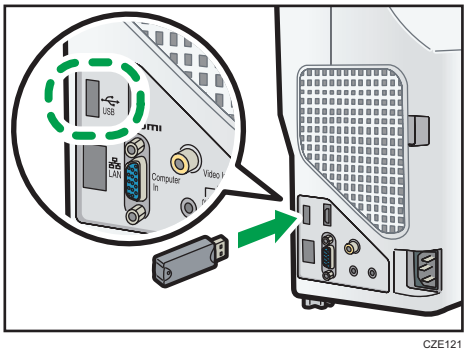
For basic operations, such as how to turn on the projector or adjust the focus, see page 35 "Projecting an Image".

Connecting the USB Device

Connect the USB memory device or digital camera to the projector.

1. **Connect the USB device to the USB port on the projector.**

   Check the port orientation before connecting.



CZE121

Note

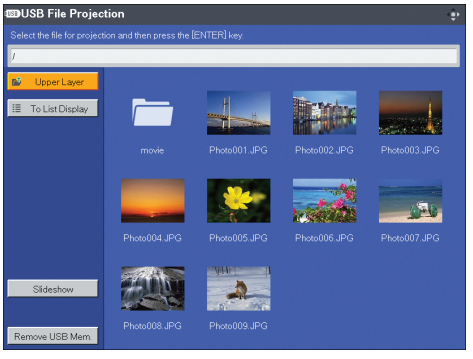
- If the projector does not recognize the USB device when it is connected, disconnect and reconnect the USB device.
- USB hubs cannot be connected.
- If [Auto Start Slideshow] in [USB Settings] is specified as [On], the slide show starts automatically with the files in the root directory as soon as the USB device is connected.

Projecting Images from a USB Memory Device

1. **Turn the projector on.**
2. **Press the [Input] button to switch the input signal to [USB Memory].**

   The files within the root directory are displayed.

3. **Select the file, [Slideshow], or folder, and then press the [Enter] button.**



- When a file is selected

  If you select a JPEG file, its image is projected. If you select an MPEG file, the video plays.

- When [Slideshow] is selected

  A slide show starts with the files in the current folder.

- When a folder is selected

  The file list within the folder is displayed. Repeat this step until the file you want to project is displayed.

Note

- Images are displayed in the numerical and alphabetical order of their file name headers.
- You can specify the slide show switching interval for still images in [Display Interval (sec.)] under [USB Settings].
- If a video file is in a folder that has been selected for a slide show, the entire video plays. When the video finishes, the next file is displayed.
- You can switch the display format of the file list. Select [To Thumbnail] to switch to thumbnail display, or select [To List Display] to switch to file name list display.

Controlling the Projected Image

How to control a still image

- [Enter] button: Starts the slide show from the projected image. Stops the slide show that is in progress.
- [▶] button: Displays the next image.
- [◀] button: Displays the previous image.
- [▲] button: Rotates the image 90° to the right.
- [▼] button: Rotates the image 90° to the left.

- [Menu] button: Returns to the [USB File Projection] screen.

How to control a video

- [Enter] button: Pauses or restarts the video.
- [▶] button: Fast forwards the video. If a video is paused, displays the next image.
- [◀] button: Rewinds the video. If a video is paused, displays the previous image.
- [▲] button: Increases the volume.
- [▼] button: Decreases the volume.
- [Menu] button: Returns to the [USB File Projection] screen.

Note

- The rewind and fast forward speed increases three levels each time the button is pressed. To reduce the speed to its original, press the [Enter] button.
- If any operation except for volume adjustment is performed during the slide show, the slide show stops.

Disconnecting the USB Device

1. **Press the [Menu] button if an image is projected.**

   The [USB File Projection] screen is displayed.

2. **Select [Remove USB Mem.] on the [USB File Projection] screen, and then press the [Enter] button.**

   The confirmation screen is displayed.

3. **Select [OK], and then press the [Enter] button.**
4. **Disconnect the USB device.**

Note

- A USB device can also be disconnected by selecting [Remove USB Mem.] in [USB Settings].

Converting Presentation Files to JPEG Files Using JPEG Conversion Tool

Microsoft PowerPoint presentation files can be converted to JPEG files, which are compatible with the projector.

You can do presentations without a computer if you save converted JPEG files to a USB memory device and then display the slides using the projector.

The converted files can also be transferred to a server.

How to Use JPEG Conversion Tool

JPEG Conversion Tool is included on the supplied CD-ROM.

JPEG Conversion Tool operating environment is described below.

- Supported operating system
  - Windows XP Professional, Home Edition, SP3 or later (32-bit version)
  - Windows XP Professional x64 Edition SP2 or later (64-bit version)
  - Windows Vista Ultimate, Business, Home Premium, Home Basic, SP2 or later (32-bit and 64-bit versions)
  - Windows 7 Home Premium, Professional, Ultimate, Enterprise (32-bit and 64-bit versions)
  - Windows 8, Pro, Enterprise (32-bit and 64-bit versions)

1. **Insert the CD-ROM in the CD-ROM drive of your computer.**

   The launcher screen appears.
2. **Specify a language and model name, and then click [Select].**
3. **Click [JPEG Conversion Tool Type A].**
4. **Specify a destination to save the application.**

   The "RICOH JPEG Conversion Tool Type A" folder is copied to the computer.
5. **To create a shortcut icon on the desktop, click [OK].**
6. **Close the screen.**

To start JPEG Conversion Tool, double-click the shortcut icon on the desktop or "RICOH JPEG Conversion Tool TypeA.exe" in the folder.

Note

- You can also use JPEG Conversion Tool by dragging and dropping the "RICOH JPEG Conversion Tool Type A" folder, which is in the root directory of the provided CD-ROM, to the computer. JPEG Conversion Tool is copied to the computer.

- To delete JPEG Conversion Tool, delete the JPEG Conversion Tool folder that was copied to the computer.

Converting Presentation Files to JPEG Files

1. **Double-click the "JPEG Conversion Tool" icon.**

   JPEG Conversion Tool starts.

2. **Drag and drop the PowerPoint file to be converted into the "JPEG Conversion Tool" dialog box.**

   To manually specify the file, enter the file name in [File Location:].

3. **Select the resolution of the converted file in the [Resolution] drop-down list.**

   If the resolution of the file and that of the projector match, the image quality is better. We recommend selecting [WXGA (1280 x 800 pixels)].

4. **To maintain the aspect ratio of the original file, select [Maintain Aspect Ratio of Conversion Source Image].**

5. **Specify the destination to which you want to save the converted file.**

   To save to a computer, select [Local PC], and then specify where to save the file.

   To save to a server, select [Server], and then select the server to which you want to save the file.

6. **Click [Convert&Save].**

7. **Click [OK].**

Note

- To convert PowerPoint files, Microsoft PowerPoint 2003, 2007, 2010, or 2013 must be installed on the computer to you are using.
- JPEG Conversion Tool is compatible with still images that have a ".ppt" or ".pptx" extension. Animations and audio are not compatible.
- To convert PowerPoint files with the ".pptx" extension, Microsoft PowerPoint 2007 or later must be installed on the computer you are using.
- The number of JPEG files created is equivalent to the number of slides. The file name after conversion is "slide + File Number + .jpg".
- For the settings method when saving converted files to the server, refer to the JPEG Conversion Tool Help.

4. Useful Functions

This chapter describes the useful functions of the projector.

Projecting Images in a Slide Show

Projecting a Slide Show at a Specified Time

You can project a slide show of files on a USB device at a specified time.

This function is useful if you want to use the projector to decorate a shop window with projected images according to the shop's business hours, for example.

Specify the following two settings to use this function:

- Power Timer

  Use this setting to specify the day and time to project a slide show.

- Auto Start Slideshow

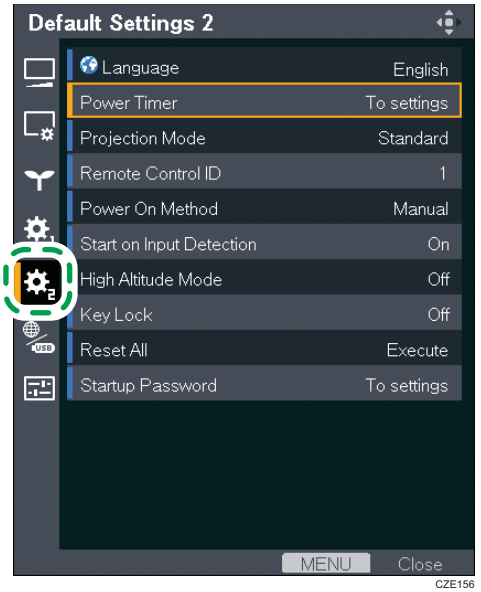
  Enable this setting to automatically start the slide show with the files in the USB device.

This section explains how to set the projector to project the slide show with the files in the USB device automatically from 9:00 to 18:00 every Sunday as an example.

Specifying Power Timer

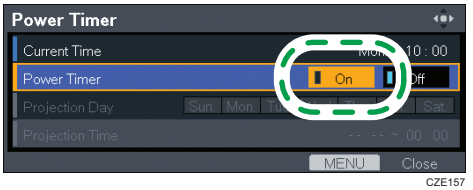
1. **Press the [Menu] button.**

2. Select [Default Settings 2], and then press the [▶] button.



CZE156

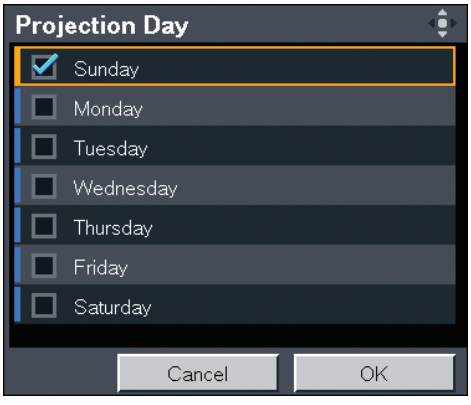
3. Select [Power Timer], and then press the [Enter] button.
4. If [Current Time] is not specified, specify the current time and day of the week.
5. Select [Power Timer], and then press the [Enter] button.
6. Select [On], and then press the [Enter] button.



CZE157

7. Select [Projection Day], and then press the [Enter] button.

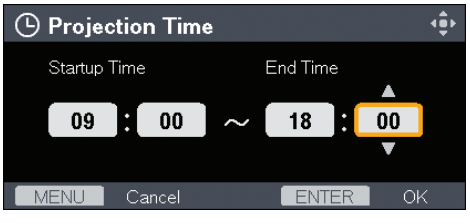
8. **Select a day to project the slide show (Sunday in this example), and then press the [Enter] button.**



9. **Select [OK], and then press the [Enter] button.**
10. **Select [Projection Time], and then press the [Enter] button.**
11. **Specify the start time (for example: 9:00) using the number buttons.**

    You can also use the [▲] and [▼] buttons to specify the start time.
12. **Specify the end time (for example: 18:00) using the number buttons.**

    You can also use the [▲] and [▼] buttons to specify the end time.

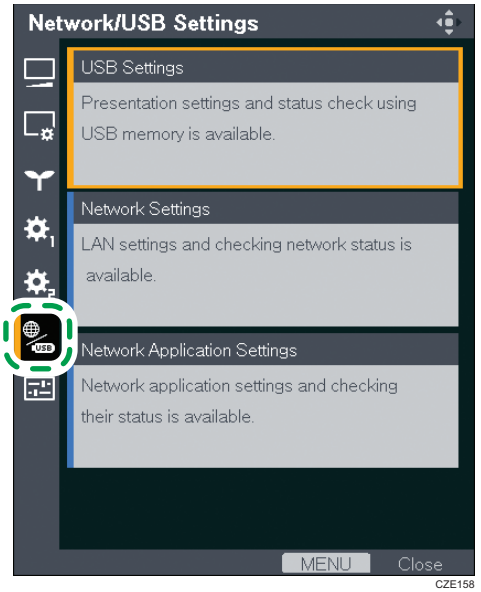


13. **Press the [Enter] button.**
14. **Press the [Menu] button twice to close the menu screen.**

Enabling Auto Start Slideshow

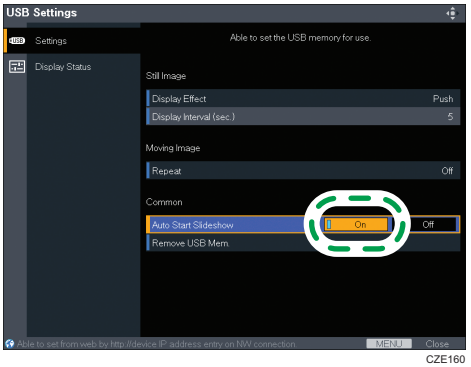
1. **Press the [Menu] button.**

2. Select [Network/USB Settings], and then press the [▶] button.



CZE158

3. Select [USB Settings], and then press the [Enter] button.
4. Select [Settings], and then press the [▶] button.
5. Select [Auto Start Slideshow], and then press the [Enter] button.
6. Select [On], and then press the [Enter] button.



CZE160

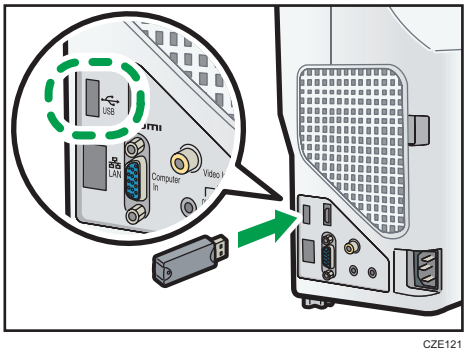
7. Press the [Menu] button.
8. Select [Reflect], and then press the [Enter] button.
9. Press the [Menu] button to close the menu screen.

Connecting a USB device on which files to be projected are stored

1. Save the files to be projected in the root directory of the USB device.

2. **Connect the USB device to the USB port on the projector.**

   Check the port orientation before connecting.



CZE121

3. **Press the [Power] button.**

   The confirm screen appears.

4. **Press the [Power] button.**

   The projector beeps and enters the standby mode.

Note

- For details about the USB devices and files supported by the projector, see page 47 "Requirements for Projecting Images from a USB Device".
- Do not disconnect the power cord when using the power timer function. The projector cannot start if the power cord is disconnected.

Customizing a Slide Show

You can customize the display effect and display interval for a slide show. These functions are useful for decorating shop windows more effectively.

Changing the display effect for a slide show

You can change the display effect for switching images. The available display effects are the following:

Push

The current image is pushed off by the next image.

CZE163

Wipe

The current image is wiped off by the next image.

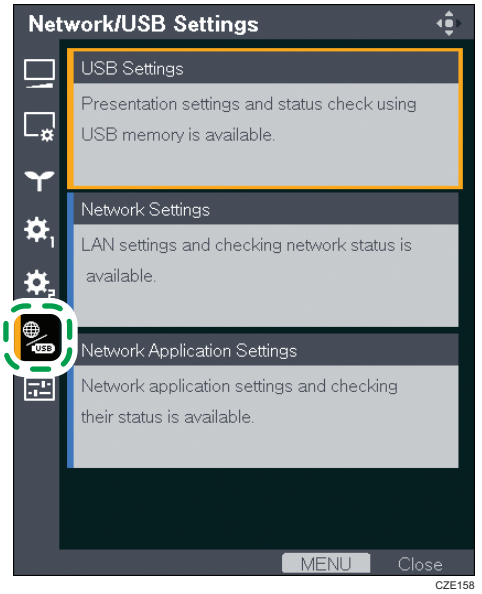
CZE164

Fade

The current image fades out and the next image fades in.

CZE165

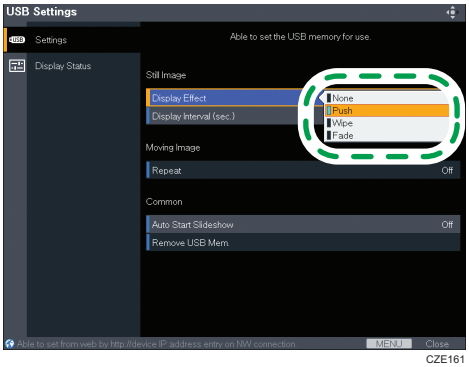
1. **Press the [Menu] button.**
2. **Select [Network/USB Settings], and then press the [▶] button.**



CZE158

3. **Select [USB Settings], and then press the [Enter] button.**
4. **Select [Settings], and then press the [▶] button.**
5. **Select [Display Effect], and then press the [Enter] button.**

6. **Select a display effect, and then press the [Enter] button.**



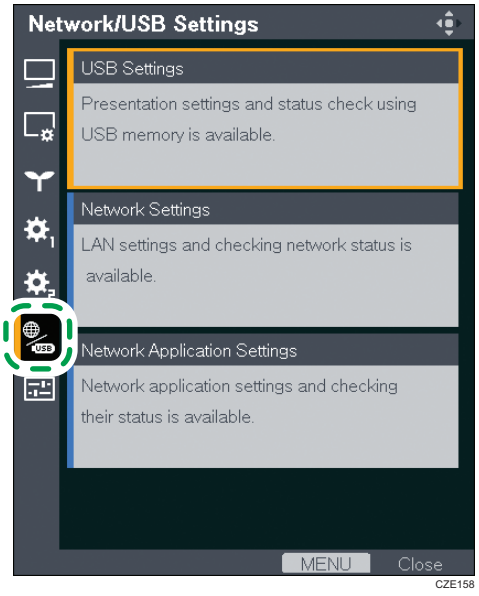
CZE161

7. **Press the [Menu] button.**
8. **Select [Reflect], and then press the [Enter] button.**
9. **Press the [Menu] button to close the menu screen.**

Adjusting the slide show switching interval

You can adjust the slide show switching interval from 5 to 999 seconds.

1. **Press the [Menu] button.**
2. **Select [Network/USB Settings], and then press the [▶] button.**



CZE158

3. **Select [USB Settings], and then press the [Enter] button.**
4. **Select [Settings], and then press the [▶] button.**

5. Select [Display Interval (sec.)], and then press the [Enter] button.
6. Specify a slide show switching interval.
7. Press the [Menu] button.
8. Select [Reflect], and then press the [Enter] button.
9. Press the [Menu] button to close the menu screen.

Specifying the Sound Quality

You can select a sound quality setting for the built-in speaker that is applicable for the type of audio that you are playing. This makes it easier to hear the audio that is playing.

Setting the Sound Quality for Giving a Presentation

If [Narration] is specified for the sound quality, the projector plays dialog clearly. This mode is useful when you give a presentation using the microphone connected to the projector, for example.

1. **Press the [Sound] button.**

   The sound quality selection screen appears at the bottom of the screen.

2. **Select [Narration] ( ) using the [◀] and [▶] buttons.**

Setting the Sound Quality for Playing Music

If [Music] is specified for the sound quality, the projector plays music dynamically. This mode is useful for music videos, for example. This mode is also useful if you want to decorate a shop window with video and music.

1. **Press the [Sound] button.**

   The sound quality selection screen appears at the bottom of the screen.

2. **Select [Music] ( ) using the [◀] and [▶] buttons.**

5. Using the Projector via a Network

This chapter explains the settings for using the projector via a network. This chapter also explains the operations that use QuickProjection.

Before Connecting to a Network

Connecting an Ethernet Cable

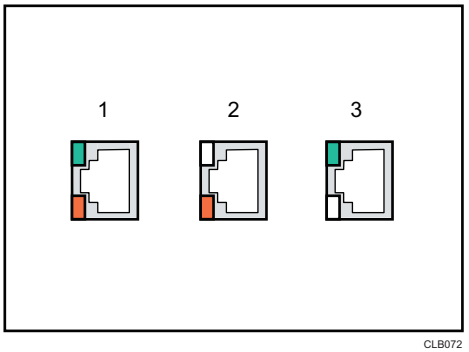
⚠CAUTION

- Do not place the power cord and connection cable in a way that might cause someone to trip and fall. The machine might fall over and cause an injury.

The projector is compatible with 10BASE-T, 100BASE-TX, and 1000BASE-T Ethernet interfaces.

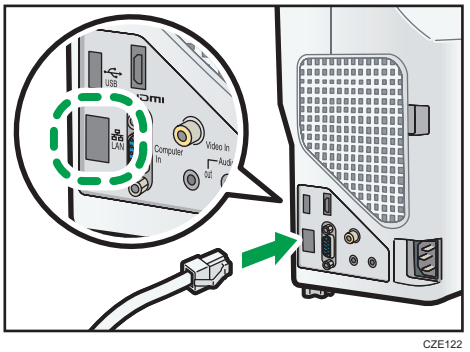
Status of the network connection

You can confirm the status of the network connection by the patterns in which the LEDs on the Ethernet interface light up. If the projector is not connected to a network, no LEDs light up.



1. **When 1000BASE-T is active (orange and green LEDs light up)**
2. **When 100BASE-TX is active (orange LED lights up)**
3. **When 10BASE-T is active (green LED lights up)**

1. **Insert the Ethernet cable into the LAN port.**



CZE122

2. **Connect the other end of the Ethernet cable to a network device such as a hub.**

Note

- Use an Ethernet cable that is shielded.

Precautions for Using a Wireless LAN

⚠WARNING

- Do not use a wireless LAN if there is electromagnetic interference from other equipment. Doing so may cause an accident due to the other equipment malfunctioning from the electromagnetic interference.

Wireless uses radio waves to exchange information instead of an Ethernet cable. The wireless LAN radio waves pass through barriers such as walls within a fixed area, so the following problems may occur:

Leak of Personal Information

- Information such as IDs, passwords, credit card numbers, and the contents of e-mails, etc., may be stolen by a third party.

Illegal Access to the Network

- Data and systems may be corrupted or manipulated by a virus.
- An imposter may access information illegally.
- Confidential information may be accessed illegally.

To minimize the possibility of these problems occurring, it is recommended to check the functions built into the wireless LAN devices, such as the projector and wireless LAN access points, and to specify security settings.

Connecting the Projector to a Network

To connect the projector to a network, you must specify network settings such as an IP address. The required settings differ depending on the network environment and how you use the projector.

You can configure the required settings easily by using Network Setting Wizard. For details about how to open Network Setting Wizard, see page 68 "Opening Network Setting Wizard".

To connect to a wired LAN

Connect an Ethernet cable to the projector, and then configure the network settings in [Wired LAN] on Network Setting Wizard. For details about how to configure the wired LAN network settings, see page 68 "Configuring the Wired LAN Settings".

To connect to a wireless LAN in infrastructure mode

In infrastructure mode, the projector can communicate with networks in which both wireless and wired LAN devices are connected via a wireless LAN access terminal. It is necessary to use greater security since all communication is via a network. Use infrastructure mode in environments in which a wireless LAN has already been configured.

Configure the network settings in [Wireless LAN (Infrastructure)] on Network Setting Wizard. The setting method differs depending on the network environment.

- Configuring the settings by Simple Wireless LAN Setup

  If the access point is compliant with the simple wireless LAN setup function, you can configure the network settings easily. This function acquires the wireless LAN settings registered in the access point, and configures those settings for the projector automatically. You can configure the settings without entering the SSID and the network key manually. For details, see page 69 "Configuring the settings by Simple Wireless LAN Setup".

- Configuring the settings manually

  You can configure the network settings by selecting the network to connect to from the available network list. Up to 10 networks are displayed in the list in radio field intensity order.

  If you want to connect to a network that is not displayed in the list or is not broadcasting its SSID, enter the SSID manually. For details, see page 70 "Configuring the settings manually".

To connect to a wireless LAN in ad hoc mode

In ad hoc mode, the projector can communicate with the computer directly, and not via an access point. No other equipment is required, so this mode is suited for locations that have no network environment. As the radio wave range is limited, use an office or conference room with a good line of sight.

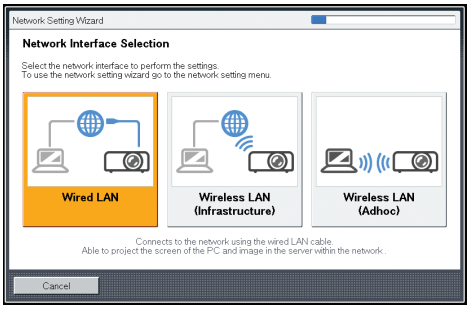
Configure the network settings in [Wireless LAN (Adhoc)] on Network Setting Wizard. For details about how to configure the network settings for a wireless LAN in ad hoc mode, see page 71 "Configuring the Wireless LAN Settings for Ad Hoc Mode".

Opening Network Setting Wizard

You can open Network Setting Wizard on the menu screen.

1. **Press the [Menu] button.**
2. **Select [Network/USB Settings], and then press the [▶] button.**
3. **Select [Network Settings], and then press the [Enter] button.**
4. **Select [Setup Wizard], and then press the [▶] button.**
5. **Select [Network Setting Wizard], and then press the [Enter] button.**

   Network Setting Wizard appears.

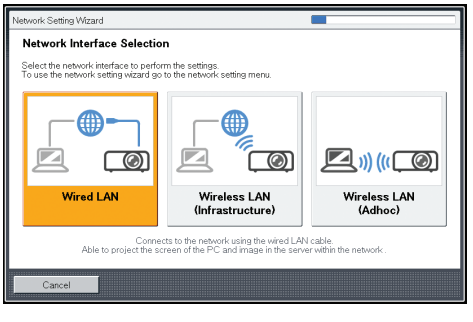


Configuring the Wired LAN Settings

Connect an Ethernet cable to the projector before configuring the settings.

Contact your network administrator for the information required for configuring network settings.

1. **Select [Wired LAN] on Network Setting Wizard, and then press the [Enter] button.**



2. **Select [Disable DHCP (Manual Settings)] or [Enable DHCP (Auto Settings)], and then press the [Enter] button.**

   If you select [Enable DHCP (Auto Settings)], proceed to Step 6.
3. **Specify the projector's IP address.**
4. **Specify the subnet mask.**

5. **Specify the default gateway.**
6. **Select [OK] on the confirmation screen, and then press the [Enter] button.**

   To project a computer's screen, see page 73 "Projecting a Computer's Screen Using QuickProjection".

Configuring the Wireless LAN Settings for Infrastructure Mode

Configuring the settings by Simple Wireless LAN Setup

The projector supports the following simple wireless LAN setup method. Contact your network administrator for the available simple wireless LAN setup method in your network environment and the information required for configuring network settings.

Setup Method

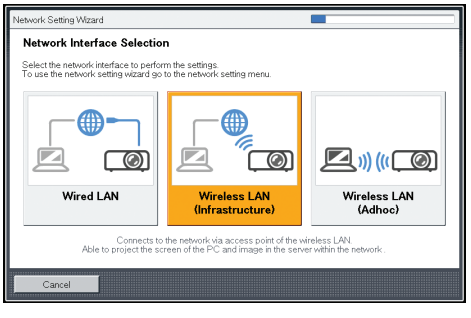
- Using push buttons

  Press the projector and access point keys or buttons to get them to connect to each other and register the settings.

- Enter the access point's PIN code in the projector

  Enter the PIN code that was generated by the access point in the projector to get them to connect to each other and register the settings. The access point's PIN code must be registered in the PIN code field of the projector.

1. **Select [Wireless LAN (Infrastructure)] on Network Setting Wizard, and then press the [Enter] button.**



2. **Select [Perform Simple Wireless LAN Setup], and then press the [Enter] button.**
3. **Select either [Connect by PIN] or [Connect by Push], and then press the [Enter] button.**
4. **If [Connect by PIN] is selected, enter the PIN code generated by the access point in the projector, and then proceed to Step 6.**

   You must preconfigure the access point's simple wireless LAN setup function.

5. **If [Connect by Push] is selected, press the access point push button.**

6. **Select [Disable DHCP (Manual Settings)] or [Enable DHCP (Auto Settings)], and then press the [Enter] button.**

   If you select [Enable DHCP (Auto Settings)], proceed to Step 10.

7. **Specify the projector's IP address.**
8. **Specify the subnet mask.**
9. **Specify the default gateway.**
10. **Select [OK] on the confirmation screen, and then press the [Enter] button.**

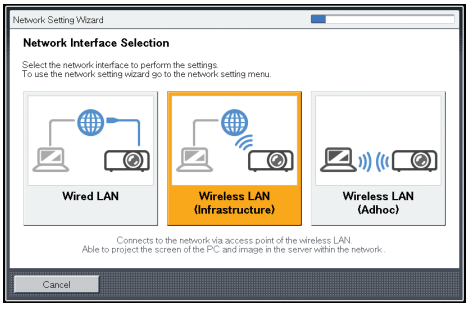
    The wireless LAN setup is complete.

    To project a computer's screen, see page 73 "Projecting a Computer's Screen Using QuickProjection".

Configuring the settings manually

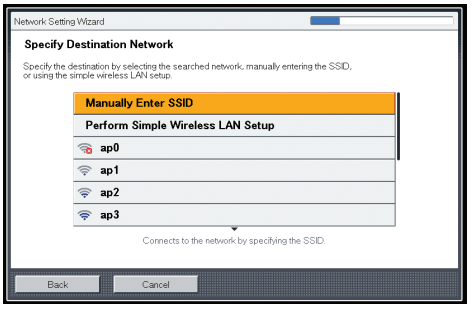
Contact your network administrator for the information required for configuring network settings, such as the SSID and the network key.

1. **Select [Wireless LAN (Infrastructure)] on Network Setting Wizard, and then press the [Enter] button.**



   The list of wireless LAN networks that can be connected is displayed.

2. **Select a wireless LAN network or [Manually Enter SSID], and then press the [Enter] button.**



3. **If you select [Manually Enter SSID] in Step 2, enter the SSID.**

4. **Enter the network key.**

   When connecting to a network for which a network key is not set, the network key input screen is not displayed. Proceed to Step 5.

5. **Select [Disable DHCP (Manual Settings)] or [Enable DHCP (Auto Settings)], and then press the [Enter] button.**

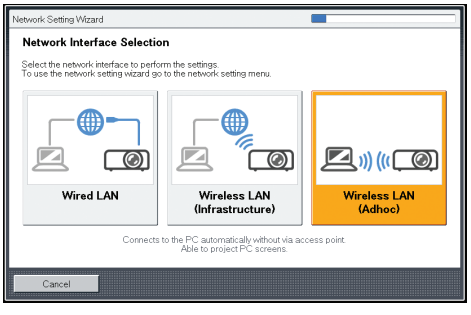
   If you select [Enable DHCP (Auto Settings)], proceed to Step 9.

6. **Specify the projector's IP address.**
7. **Specify the subnet mask.**
8. **Specify the default gateway.**
9. **Select [OK] on the confirmation screen, and then press the [Enter] button.**

   To project a computer's screen, see page 73 "Projecting a Computer's Screen Using QuickProjection".

Configuring the Wireless LAN Settings for Ad Hoc Mode

1. **Select [Wireless LAN (Adhoc)] on Network Setting Wizard, and then press the [Enter] button.**



   The network settings are configured automatically.

2. **Select [OK] on the confirmation screen, and then press the [Enter] button.**

   To project a computer's screen, see page 73 "Projecting a Computer's Screen Using QuickProjection".

Projecting a Computer's Screen via a Network

The projector does not support the Network Projector function of Windows. Use QuickProjection, which is the application provided with the projector for projecting a computer's screen via a network.

This section explains how to use QuickProjection in Windows as an example. The basic operation flow is the same as when a Mac OS is used.

How to Use QuickProjection

QuickProjection is included on the supplied CD-ROM.

QuickProjection operating environment is described below.

- Supported operating system
  - Windows XP Professional, Home Edition, SP3 or later (32-bit version)
  - Windows Vista Ultimate, Business, Home Premium, Home Basic, SP2 or later (32-bit and 64-bit versions)
  - Windows 7 Home Premium, Professional, Ultimate, Enterprise (32-bit and 64-bit versions)
  - Windows 8, Pro, Enterprise (32-bit and 64-bit versions)
  - Mac OS X 10.6–10.8

1. **Insert the CD-ROM in the CD-ROM drive of your computer.**

   The launcher screen appears.
2. **Specify a language and model name, and then click [Select].**
3. **Click [QuickProjection].**
4. **Specify a destination to save the application.**

   The "QuickProjection.exe" is copied to the computer.
5. **To create a shortcut icon on the desktop, click [OK].**
6. **Close the screen.**

To start QuickProjection, double-click the shortcut icon on the desktop or "QuickProjection.exe".

Note

- Actual flow may vary according to the operating system used. Follow the on-screen instructions to use QuickProjection.
- You can download the latest version of QuickProjection from our website. Access the URL displayed on the standby screen for [Network PC] input.
- You can also use QuickProjection by dragging and dropping the "QuickProjection.exe", which is in the "QuickProjection" folder on the provided CD-ROM, into the computer or a USB memory device.

- To delete QuickProjection, delete "QuickProjection.exe" and the "QuickProjection" folder in "%appdata%\RICOH". For details about how to delete QuickProjection, see QuickProjection Help.
- Two versions of QuickProjection are available for Mac OS, one supports audio and the other does not.

Projecting a Computer's Screen Using QuickProjection

Important

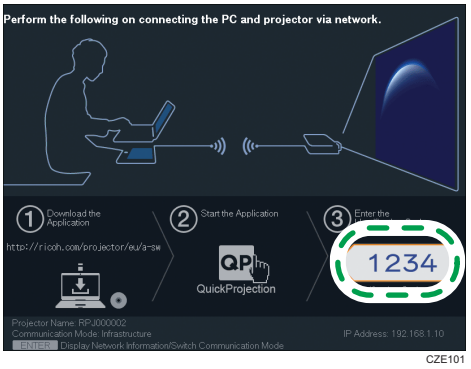
- **To project images by ad hoc wireless communication, log on to the computer with administrator privileges.**
- **Depending on the settings of the computer, the password input screen is displayed when you start QuickProjection. Enter an administrator's password.**

Before projecting a computer's screen using QuickProjection, connect the projector to a network. For details about how to connect the projector to a network, see page 67 "Connecting the Projector to a Network".

For basic operations, such as how to turn on the projector or adjust the focus, see page 35 "Projecting an Image".

1. **Turn the projector on.**
2. **Press the [Input] button to switch the input signal to [Network PC].**

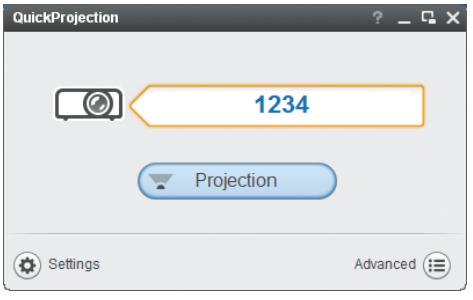
   The standby screen for [Network PC] input appears.
3. **Check the 4-digit number (identification code) on the projection screen.**



CZE101

4. **Double-click the "QuickProjection" icon on the computer.**

5. **Enter the identification code on the QuickProjection dialog.**



The projector's name or IP address can also be entered instead of the identification code.

6. **Click [Projection].**

The computer's screen is projected.

While the computer's screen is being projected, a small QuickProjection is displayed in the lower right corner of the computer's screen.

To pause the projection, click .

To quit the projection, click [×], and then click [OK].

Note

- For detailed QuickProjection operating methods, refer to the QuickProjection Help.
- If the display resolution of the computer screen and the projector matches, the image quality is better. We recommend setting the resolution of the computer screen to 1280 × 800.

Using the Server Function

The projector can access the projection server and the DLNA-compatible devices via a network to project files stored on them. The projector can project still images by using its server function. The projector can also project videos stored on DLNA-compatible devices if DLNA certification mode is disabled. The supported file types for the projection server and the DLNA-compatible devices are shown below:

Still images (Projection server/DLNA-compatible devices)

Item	Requirement
File extensions	jpg, jpeg, JPG, JPEG
File size	Less than 10 MB
Number of pixels	2 × 2 to 5120 × 5120 pixels
File format	Baseline format

Videos (DLNA-compatible devices)

Item	Requirement
File extensions	mpg, mpeg, MPG, MPEG, m2ts, m2t, M2TS, M2T, m2p, M2P
Number of pixels	320 × 240 to 1280 × 720 pixels
Video compression format	MPEG2
Audio compression format	MPEG1/2-Audio Layer2, Linear PCM
Container format	MPEG2-PS, MPEG2-TS
Frame rate	Less than 30 fps
Bit rate	Less than 15 Mbps (recommended)

To project a file on the server, you must configure the required settings for the projector and the server. For details about the settings for using the projection server function, see page 76 "Using the Projection Server Function". For details about the settings for using the DLNA server function, see page 78 "Using the DLNA Server Function".

Note

- The supported video file types are compliant with the projector's own specifications. They are not compliant with the DLNA 1.5 guidelines.
- The maximum number of files that can be displayed in the list is 512 per folder.

- Characters that can be used for file names and folder names are single-byte letters and numbers and characters used in the language specified in [Language] under [Default Settings 2]. If characters for languages other than the language specified are used, the file name or folder name will not be displayed properly.
- If the total number of characters in the file name and the path exceeds 255, the file cannot appear on the list.
- Data in a folder that is stored six levels or more into a hierarchy cannot be accessed.

Using the Projection Server Function

The projector accesses the network server to project JPEG files saved on the server.

You do not need to carry a storage device or computer that has the files to be used. Therefore, it is useful to protect information.

Accessing folders on the server can be controlled by registering an access number.

Configuring the network server

A network server on which IIS (Internet Information Services) is installed can be used as a projection server.

The operating environment of the projection server function is described below:

- Windows Server 2003 R2 Standard (32-bit version) SP2 and IIS 6

  IIS 6 is not provided with a URL rewrite module. Use a URL rewrite module provided by a third party.
- Windows Server 2008 R2 Standard (64-bit version) SP1 and IIS 7
- Windows Server 2012 Standard and IIS8

  Install the URL Rewrite Module that can be downloaded from Microsoft Download Center. If the ASP (Active Server Pages) Execution Environment is not available on the network server, install the ASP module.

The following settings are required on the network server that is used as a projection server:

Creating a virtual directory

Create a directory (virtual directory) that the projector accesses on the network server.

Register the alias name and directory path of the virtual directory by following the wizard instructions. For detailed procedures, see the Microsoft website.

- Alias name

  An alias name is required when the projector accesses the virtual directory.

  The settings must be configured in [Projection Server Settings] under [Network Application Settings]. For details, see page 77 "Connecting the projector to the projection server".

- Directory path

  This is a path for the directory in which files projected by the projector are stored.

  To store files converted by JPEG Conversion Tool on the network server, register the directory path. For details, see JPEG Conversion Tool Help.

  If you restrict access to the projection server with an access number, create a folder whose name is the number that you specify as the access number. After this, store the files to be projected in the folder. To project the files stored in the folder, enter the access number when accessing the projection server.

Storing the folder management file for the projection server

The folder management file for the projection server is stored in the "Projection Server" folder on the supplied CD-ROM. Copy the folder management file to the virtual directory on the network server.

Registering a URL rewrite rule

Using a URL rewrite module, register a rule to rewrite "original characters" to "rewritten characters":

- Original characters: ^alias name of the virtual directory/(.*)
- Rewritten characters: /alias name of the virtual directory/name of the folder management file

If you use IIS 7, and if the alias name is "ABC" and the folder management file name is "xyz.asp", the characters become the following:

- Original characters: ^ABC/(.*)
- Rewritten characters: /ABC/xyz.asp

Connecting the projector to the projection server

Configure the settings for the projection server in [Projection Server Settings] under [Network Application Settings] beforehand.

- Server URL

  Enter the projection server URL and the alias name of the virtual directory in the following format:

  Projection server URL/alias name/{n}

  If the projection server URL is "http://hostname" and the alias name is "document", enter "http://hostname/document".

  An IP address can be used as the projection server URL.

  If you select [Access No.] in [Access Restriction Type], add "/{n}" at the end of the Server URL.

Specify other settings in [Projection Server Settings], if necessary.

Note

- To use the projection server function, you must specify the network settings in advance. For details, see page 67 "Connecting the Projector to a Network".

- For details about how to change the settings, see page 103 "Changing the Settings". For details about the setting items, see page 131 "Network Application Settings Menu".

Using the DLNA Server Function

The projector is compatible with DLNA. DLNA is the guideline for sharing content on a network. Therefore, the projector can access DLNA-compatible devices such as file servers, tablet computers, or smartphones and project JPEG files stored on them.

To access to DLNA-compatible devices from the projector, the projector and the DLNA-compatible devices must be connected to a network. For details about how to connect the projector to a network, see page 67 "Connecting the Projector to a Network".

To project files on the DLNA-compatible device, you must configure the file sharing settings on the device. For details about how to use DLNA-compatible devices, see the manuals provided with the DLNA-compatible devices.

Note

- The projector is certified to DLNA 1.5 guidelines for still images. If [DLNA Certification Mode] in [Network Application Settings] is specified as [Enable], the projector works as a DLNA-certified device and video playback is restricted. If this setting is specified as [Disable], the projector can also project MPEG files.
- Depending on the device used for this function, you may need to install a DLNA application on the device.

Projecting Files that Are Stored on the Server

For basic operations, such as how to turn on the projector or adjust the focus, see page 35 "Projecting an Image".

Projecting files

1. **Turn the projector on.**
2. **Press the [Input] button to switch the input signal to [Server].**

The list of projection servers and DLNA servers is displayed.

3. **Select the server that has the files to be projected.**

The list of files in the root directory is displayed.

If [Access Restriction Type] in [Network Application Settings] is specified as [Access No.], the access number input screen is displayed after the projection server is selected. Contact your server administrator for your access number.

If [DLNA Certification Mode] in [Network Application Settings] is specified as [Enable], some video files do not appear in the file list. For details, see page 131 "Network Application Settings Menu".

4. **Select the file, [Slideshow], or folder, and then press the [Enter] button.**
   - When a file is selected

     If you select a JPEG file, its image is projected. If you select an MPEG file, the video plays.
   - When [Slideshow] is selected

     A slide show starts with the files in the current folder.
   - When a folder is selected

     The file list within the folder is displayed. Repeat this step until the file you want to project is displayed.

Note

- Images are displayed in the numerical and alphabetical order of their file name headers.
- You can specify the slide show switching interval for still images in [Display Interval (sec.)] in [Server] under [Network Application Settings].
- If a video file is in a folder that has been selected for a slide show, the entire video plays. When the video finishes, the next file is displayed.

Controlling the projected image

How to control a still image

- [Enter] button: Starts the slide show from the projected image. Stops the slide show that is in progress.
- [▶] button: Displays the next image.
- [◀] button: Displays the previous image.
- [▲] button: Rotates the image 90° to the right.
- [▼] button: Rotates the image 90° to the left.
- [Menu] button: Returns to the file list screen.

How to control a video

- [Enter] button: Pauses or restarts the video.
- [▶] button: Fast forwards the video. If a video is paused, displays the next image.
- [◀] button: Rewinds the video. If a video is paused, displays the previous image.
- [▲] button: Increases the volume.

- [▼] button: Decreases the volume.
- [Menu] button: Returns to the file list screen.

Note

- The rewind and fast forward speed increases three levels each time the button is pressed. To reduce the speed to its original, press the [Enter] button.
- If any operation except for volume adjustment is performed during the slide show, the slide show stops.

Projecting Images Using DLNA-Compatible Devices

The projector can project still images and videos transmitted from DLNA-compatible devices.

Note

- For details about the supported file types for this function, see page 75 "Using the Server Function".

Preparation

To project files transmitted from DLNA-compatible devices, specify the following settings:

- Connect the projector to a network using [Network Settings]
- Select [Enable] in [Remote Projection Control] under [Network Application Settings]

For details, see page 123 "Network Settings Menu" and page 131 "Network Application Settings Menu".

The DLNA-compatible devices also must be connected to a network. For details about how to use DLNA-compatible devices, see the manuals provided with the DLNA-compatible devices.

Note

- Depending on the device used for this function, you may need to install a DLNA application on the device.

Projecting Images from DLNA-Compatible Devices

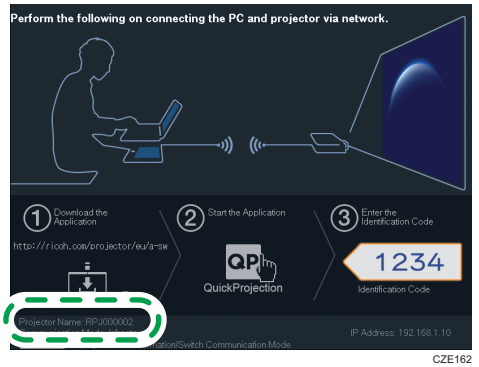
For basic operations, such as how to turn on the projector or adjust the focus, see page 35 "Projecting an Image".

The procedure of the DLNA-compatible device described below is an outline of the basic flow. The detailed procedure varies depending on the device and application. For details, see the manuals provided with the device and application.

1. **Turn the projector on.**
2. **Press the [Input] button to switch the input signal to [Network PC].**

The standby screen for [Network PC] input appears.

3. **Check the projector name on the projection screen.**



CZE162

4. **On the DLNA-compatible device, select the projector name checked in Step 3 as a destination device.**
5. **On the DLNA-compatible device, select the file you want to project.**

   The selected file is projected.

Note

- For details about how to control the projected image and quit the projection, see the manuals provided with the DLNA-compatible devices and applications.

6. Using the Interactive Function (RICOH PJ WX4141NI only)

This chapter explains how to use the interactive function.

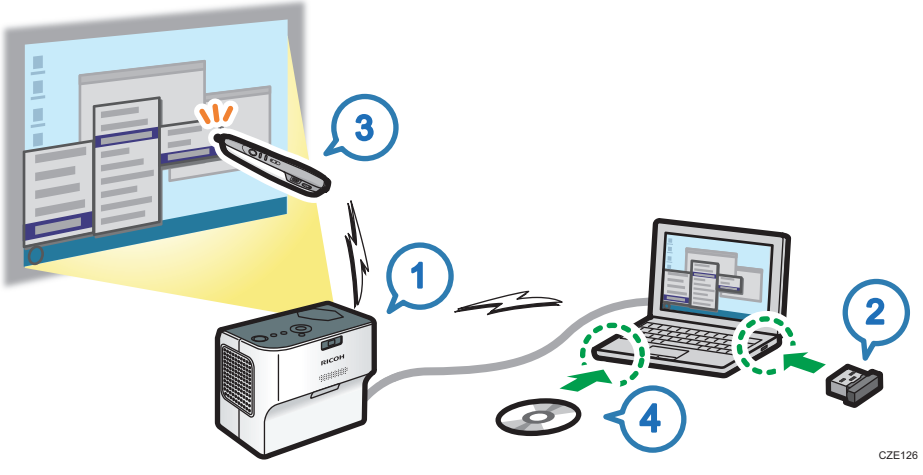
Preparations for Using the Interactive Function

Important

- **To use the interactive function, you must use an RGB cable or an HDMI cable to connect the projector and computer. You cannot use the interactive function if another type of cable is used for the connection.**
- **The interactive function cannot be used when a screen is displayed on the Windows extended desktop.**

The interactive function allows you to operate a computer connected to the projector directly on the projection screen. You can also write and draw on a projected screen using the included software "RICOH PJ Interactive Software".

To use the interactive function, the following settings are required.



Step	Setting Contents	Reference
1	Set Interactive Mode to [On].	page 84 "Enabling Interactive Mode"
2	Register the computer USB adapter to the projector.	page 85 "Registering the Computer USB Adapter"

Step	Setting Contents	Reference
3	Enable the projector to recognize the electronic pen.	page 88 "Enabling the Projector to Recognize the Electronic Pen"
4	Install RICOH PJ Interactive Software on a computer.	page 90 "Installing RICOH PJ Interactive Software"

Note

- You only need to perform Steps 1 to 3 to use the electronic pen to operate the computer from its projected image.
- You must perform Steps 1 to 4 to write and draw on the screen.

Enabling Interactive Mode

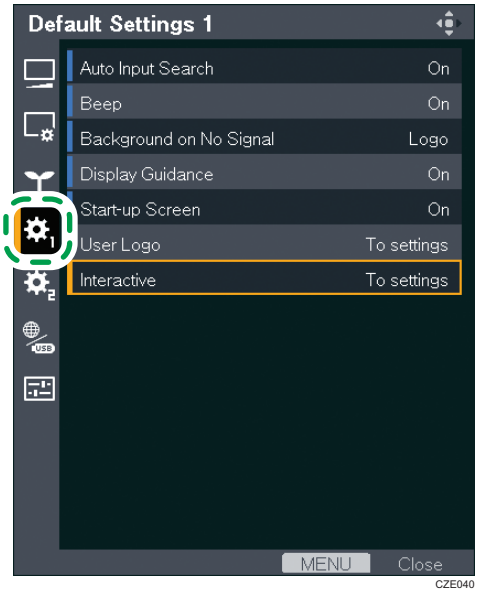
In Interactive Mode, the projector can recognize the electronic pen and the computer USB adapter.

We recommend disabling wireless LAN communication when you enable Interactive Mode. To disable wireless LAN communication, select [Wired LAN] or [Disable] in [Network Interface] under [Network Settings]. For details, see page 123 "Network Settings Menu".

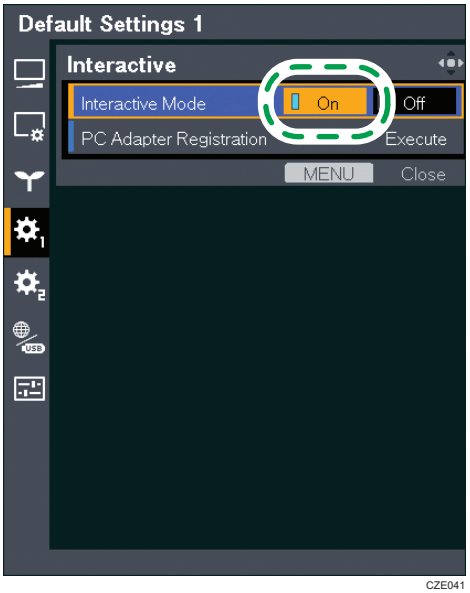
1. **Turn on the projector to project the screen.**

   For details about how to turn on the projector, see page 35 "Turning On the Projector".

2. **Press the [Menu] button.**
3. **Select [Default Settings 1], and then press the [▶] button.**



4. **Select [Interactive], and then press the [Enter] button.**
5. **Select [Interactive Mode], and then press the [Enter] button.**
6. **Select [On], and then press the [Enter] button.**



7. **Press the [Menu] button twice to close the menu screen.**

   To go on to register a computer USB adapter, see page 85 "Registering the Computer USB Adapter".

Registering the Computer USB Adapter

⚠CAUTION

- Keep computer USB adapter out of reach of children. If a child accidentally swallows a computer USB adapter, consult a doctor immediately.

To use the computer USB adapter in Interactive Mode, the adapter must be registered to the projector. Once the computer USB adapter is registered to the projector, there is no need to register it again. You can use the computer USB adapter with any computer that is connected to the projector.

The following operating environment is required to use the computer USB adapter.

Item	Specifications
Operating System	• Windows XP • Windows 7 • Windows 8

Item	Specifications
USB port	• USB Type A Do not use a USB hub.

1. **Have a computer USB adapter at hand.**

CWD002

2. **Turn on the projector.**

   For details about how to turn on the projector, see page 35 "Turning On the Projector".

3. **Connect the computer to the projector using an RGB cable or an HDMI cable.**

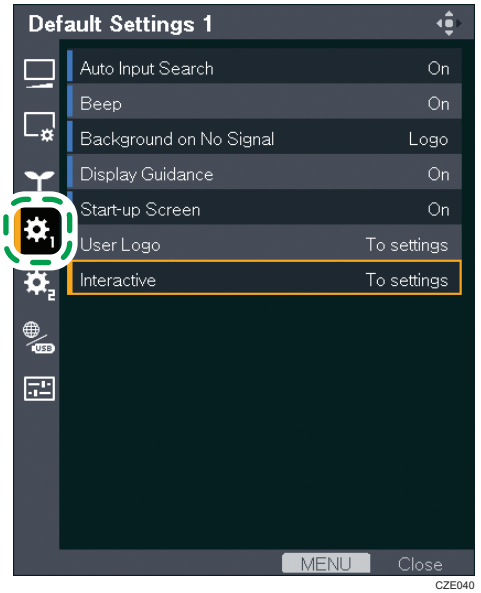
   For details about how to connect the computer to the projector, see page 30 "Connecting to the RGB out port" and page 30 "Connecting to the HDMI port".

4. **Project the computer screen on the projector screen.**

   For details about how to project the computer screen, see page 36 "Projecting an Image".

5. **Press the [Menu] button.**

6. **Select [Default Settings 1], and then press the [▶] button.**



CZE040

7. **Select [Interactive], and then press the [Enter] button.**

8. **Check that [Interactive Mode] is set to [On].**

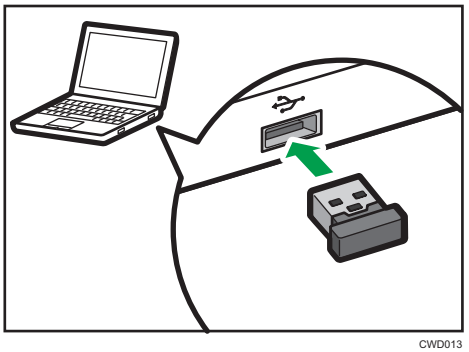
   For the setting procedure, see page 84 "Enabling Interactive Mode".

9. **Select [PC Adapter Registration] and press the [Enter] button.**

CZE042

10. **Install the computer USB adapter into the computer.**

    Upon being installed, the computer USB adapter flickers twice every 0.5 seconds.



CWD013

- If registration succeeds

  The message "Registration has completed." appears. The computer USB adapter flickers every two seconds. Press the [Enter] button to close the message.

- If registration fails

  If there are any obstacles between the projector and computer, the attempt to perform registration will fail.

  Registration should complete in under 2 minutes. If it does not complete after 2 minutes, remove the USB adapter from the computer, and then insert it again.

11. **Press the [Menu] button twice to close the menu screen.**

Note

- Do not register computer USB adapters for multiple projectors at the same time. The computer USB adapter might not be registered correctly.

Enabling the Projector to Recognize the Electronic Pen

Once the projector recognizes the electronic pen, you can directly operate the computer display on the screen.

1. **Turn on the projector.**

   For details about how to turn on the projector, see page 35 "Turning On the Projector".

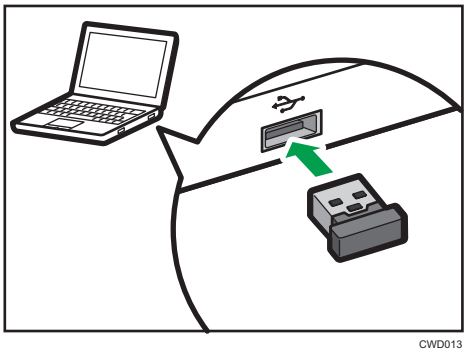
2. **Connect the computer to the projector using an RGB cable or an HDMI cable.**

   For details about how to connect the computer to the projector, see page 30 "Connecting to the RGB out port" and page 30 "Connecting to the HDMI port".

3. **Project the computer screen on the projector screen.**

   For details about how to project the computer screen, see page 36 "Projecting an Image".

4. **Install the computer USB adapter into the computer.**

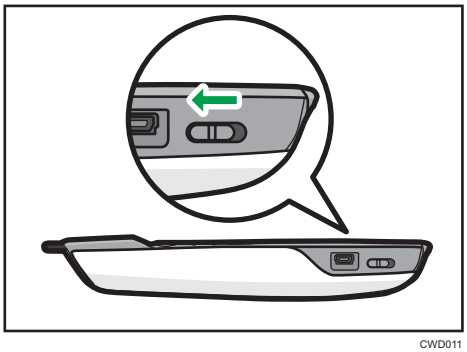


CWD013

When the registered computer USB adapter is installed into the computer, the adapter flickers once every 0.5 seconds. Then, when the computer USB adapter is connected to the projector, the adapter flickers once every two seconds. If the adapter flickers twice every 0.5 seconds, you need to register it on the projector.

To make registration, see page 85 "Registering the Computer USB Adapter".

5. **Turn the power switch of the electronic pen to "On".**

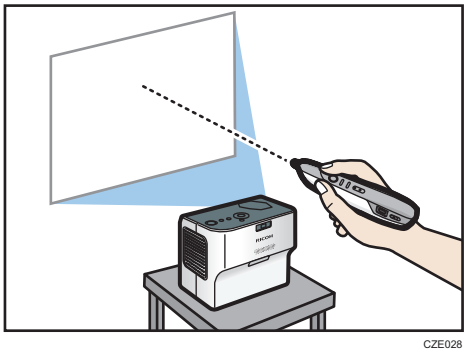


CWD011

The communication indicator on the electronic pen will then flicker.

If the communication indicator fails to flicker, check that the rechargeable battery is installed in the electronic pen. If a battery is installed, recharge it. For about the electronic pen, see page 92 "Using the Electronic Pen".

6. **Point the pen nib toward the projected screen.**



CZE028

- If registration succeeds

  The projected computer screen pointer moves according to the movements of the electronic pen. Also, the communication indicator on the electronic pen lights up or flickers green rapidly and the computer USB adapter lights up.

- If registration fails
  - Check how you are holding the electronic pen. If you are holding the top or the bottom of the pen, the projector is unable to recognize the electronic pen correctly. To hold the electronic pen correctly, see page 93 "How to Use the Electronic Pen".
  - Check that the pen nib is not pointing at a shadow. If the pen nib is pointing at a shadow or if it is not pointing at the screen, then the projector is unable to recognize the electronic pen correctly. To operate the electronic pen correctly, see page 93 "How to Use the Electronic Pen".

- If the electronic pen is not recognized correctly after the direction of the pen is corrected or even when you hold the electronic pen correctly, check the procedure from Step 1 by referring to page 98 "When You Cannot Use the Interactive Function".

Installing RICOH PJ Interactive Software

RICOH PJ Interactive Software allows you to write and draw on a projection screen. When you use RICOH PJ Interactive Software, install it on a computer. For details about how to use RICOH PJ Interactive Software, see Operating Instructions (Interactive Function).

The following operating environment is required to use RICOH PJ Interactive Software.

Item	Specifications
CPU	• Intel® Core™2 Duo 2 GHz or more recommended (Minimum: Intel Core Solo U1300)
Memory	• Windows XP: 2 GB or more recommended (Minimum: 512 MB) • Windows 7 / 8 (32 bit): 3 GB or more recommended (Minimum: 1 GB) • Windows 7 / 8 (64 bit): 4 GB or more recommended (Minimum: 2 GB)
HDD	• 9 GB or more free space recommended (Minimum: 2 GB)
Operating System	• Windows XP Home / Professional SP3 or later (32 bit) • Windows 7 Home Premium / Professional / Ultimate / Enterprise SP1 or later (32 bit / 64 bit) • Windows 8 / Pro / Enterprise (32 bit / 64 bit)

Important

- **To install RICOH PJ Interactive Software on a computer, log on as a user with administrator privileges.**

1. **Insert the CD-ROM in the CD-ROM drive of your computer.**
2. **Specify a language and model name, and then click [Select].**
3. **Click [PJ Interactive Software].**
4. **Select the language for the installation, and then click [OK].**
5. **If .NET Framework 4 is not installed on your computer, click [Install].**

   If .NET Framework 4 has already been installed, the message [Install] does not appear. Proceed to the next step.
6. **Click [Next].**

7. **Select "I accept the terms in the license agreement", and then click [Next].**
8. **Specify the installation folder, and then click [Next].**
9. **Click [Install].**
10. **Click [Finish].**

Note

- If the [User Account Control] dialog box appears during the installation procedure, click [Yes] or [Continue].
- To uninstall RICOH PJ Interactive Software, use the program delete function in [Control Panel] to delete "RICOH PJ Interactive Software".

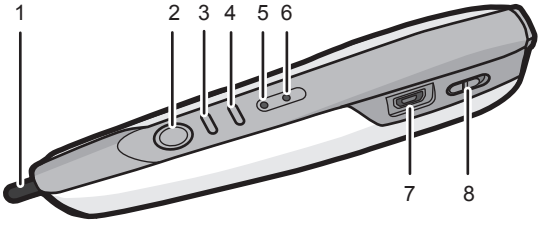
Using the Electronic Pen

This section introduces the names of the parts of the electronic pen and explains how to charge it.

After you finish setting up the interactive function, insert the computer USB adapter into the computer. After the computer recognizes the electronic pen, you can use it to perform operations on the projected screen. For details about the electronic pen, see page 88 "Enabling the Projector to Recognize the Electronic Pen".

Communication between the electronic pen, the projector, and the computer USB adapter is conducted wirelessly. Do not block the area between the electronic pen, projector, and computer. In addition, do not use wireless devices near the electronic pen. Otherwise, the position of the electronic pen will not be recognized correctly.

Electronic Pen Parts and Their Functions



CWD008

1. **Pen nib switch**

   Used to write, draw, and select operations on the projected screen. This switch is functionally equivalent to the left button of a computer mouse.

2. **Left button**

   Similar to the left button of a computer mouse.

3. **Right button**

   Similar to the right button of a computer mouse.

4. **Point adjustment button**

   Used to adjust the point position of the pen nib when the pen is held in a different way. The standard position of the point is the center of the pen, and it moves each time this button is pressed. The order in which the point moves is as follows: up, down, and to the center.

5. **Battery indicator**

   Indicates the battery status of the electronic pen.

   The battery indicator keeps lighting while charging and goes off when the charge is completed.

6. **Communication indicator**

   Indicates the communication status of the electronic pen.

   This indicator flickers in red until the projector recognizes the electronic pen.

When the projector recognizes the electronic pen, the indicator lights up in green or flickers rapidly.

7. **USB connecter**

   Used to connect the electronic pen charge cable. See page 97 "Recharging the Electronic Pen".

8. **Power switch**

   Switches the power of the electronic pen between on and off.

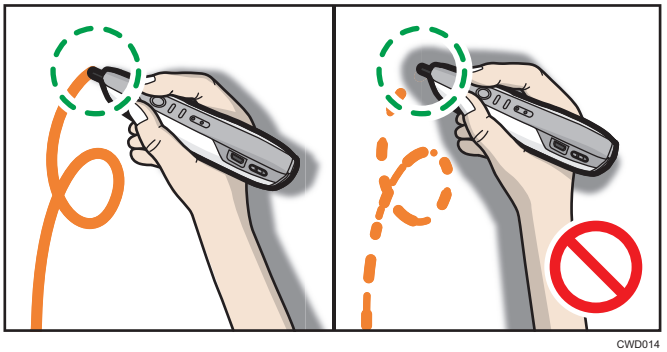
How to Use the Electronic Pen

When the pen nib is pointed toward the screen projected by the projector in Interactive Mode, the electronic pen is recognized and the pointer on the projected computer screen can be operated with the electronic pen. See page 88 "Enabling the Projector to Recognize the Electronic Pen".

You can operate the computer projection screen by touching it with the pen nib—you can select an icon or menu, or write and draw. You may also touch the pen nib twice on the same position of the screen, much like the double-click of a mouse.

Important

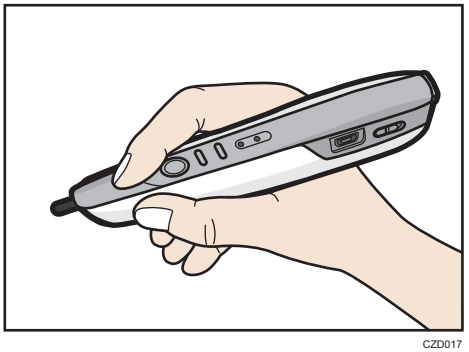
- **Operate the electronic pen so that the pen nib does not point toward a shadowed area.**



CWD014

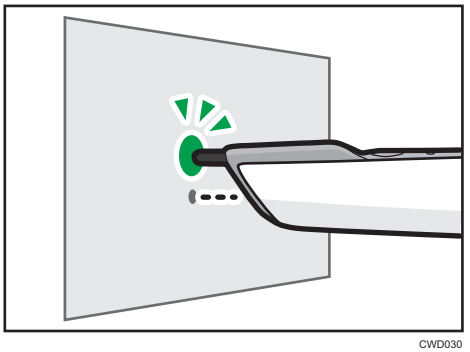
When the projector is installed on a table or the floor

Hold the electronic pen as shown below. If the nib or bottom of the electronic pen is held, the position of the electronic pen will not be recognized correctly.



CZD017

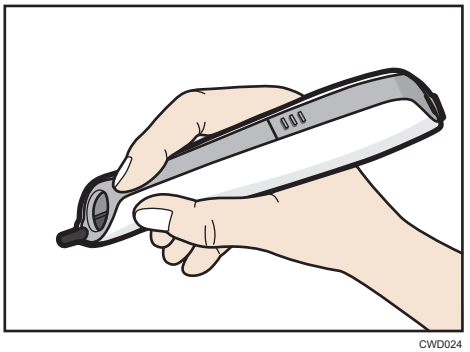
To align the point position of the electronic pen with the pen nib switch, and not the center of the pen, use the point adjustment button to move the point position up.



CWD030

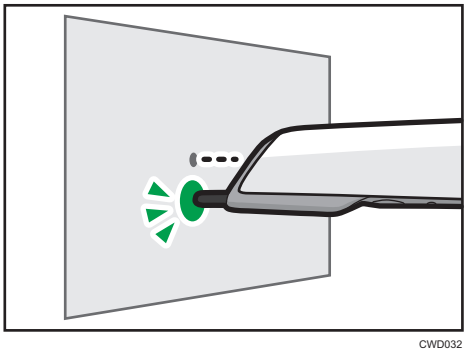
When the projector is installed on a wall or ceiling

When the projector is installed on a wall or ceiling, hold the electronic pen upside down to eliminate the shadow that appears on the screen.



CWD024

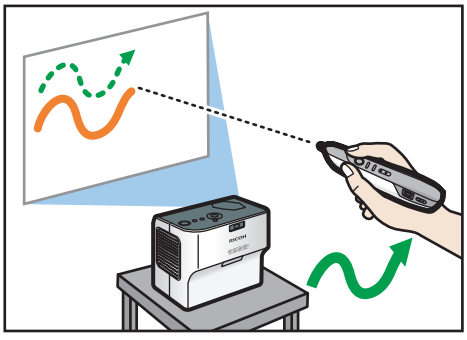
To align the point position with the pen nib switch while holding the electronic pen upside down, use the point adjustment button to move the point position down.



CWD032

Operating the electronic pen remotely

You can also operate the screen remotely. When standing away from the screen, use the mouse button on the electronic pen.



CZE127

Note

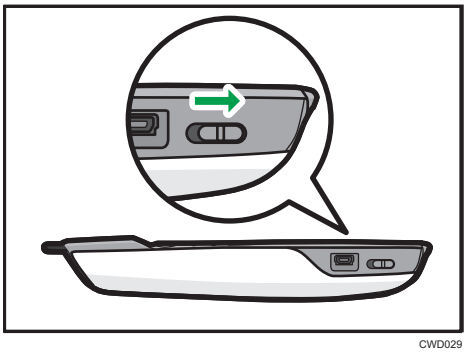
- The electronic pen can only be used while the projector is in Interactive Mode. For details about how to configure the projector, see page 84 "Enabling Interactive Mode".

Installing a Rechargeable Battery into the Electronic Pen

⚠WARNING

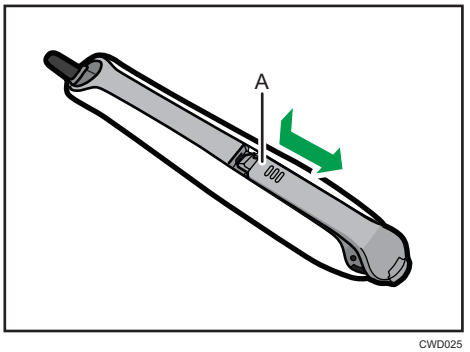
- For safe operation, follow the warnings below regarding the batteries. If you use the batteries incorrectly, it may result in fire or injury due to batteries leaking or exploding.
  - Do not use batteries other than the ones specified.
  - Do not mix and use batteries that are different types or that are new and old.
  - Correctly insert batteries according to the polarity (+ / −).
  - Do not charge non-rechargeable batteries.
  - Do not heat or throw the batteries into fire or water.
  - Do not connect the positive and negative terminals on a battery with a wire.
  - Remove the batteries that are past their suggested use period or that are depleted.
  - Remove the batteries when they will not be used for extended periods.
  - Keep the batteries out of the reach of children. Children may swallow or choke on the batteries. If this happens, contact a doctor immediately.

1. **Check the electronic pen to make sure that the power is off.**



CWD029

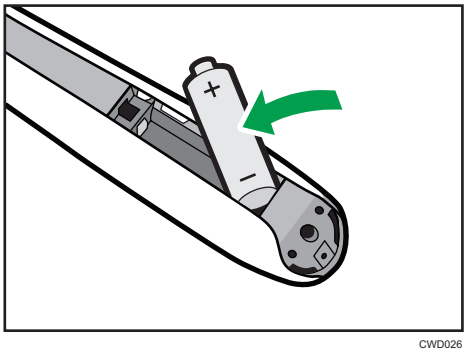
2. **Push down A and slide the battery cover to remove it.**



CWD025

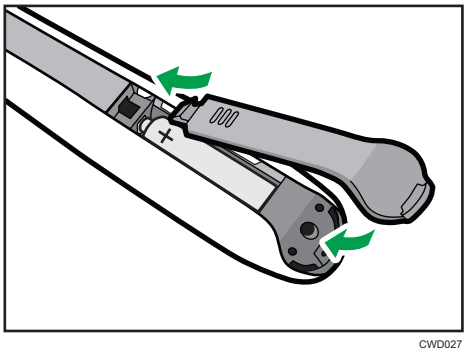
3. **Install a battery.**

   Check that the battery has been installed in the right direction.



CWD026

4. **Re-install the battery cover.**



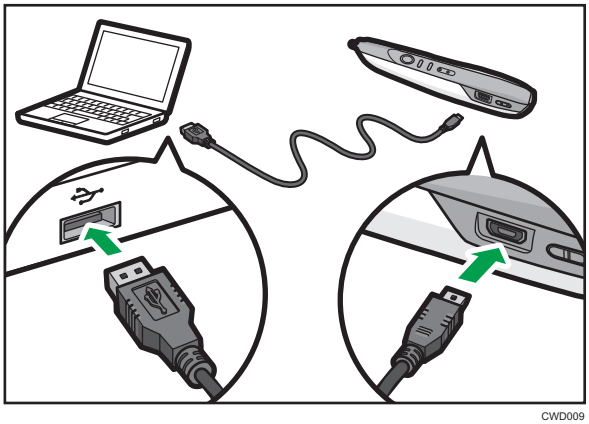
CWD027

Note

- For details about what to do if a battery has leaked, see page 147 "Operating Precautions".

Recharging the Electronic Pen

Insert an electronic pen charge cable into a USB port on the computer and connect the electronic pen.



CWD009

The battery indicator keeps lighting while charging and goes off when the charge is completed.

When You Cannot Use the Interactive Function

If you cannot use the interactive function, follow the steps below in the specified order to troubleshoot the problem.

Step	Check item	Solutions
1	Check the projector to make sure that power is supplied to it.	If the projector is not supplied with power, check the power cord for connection and turn on the power. To connect the cord and turn on the power correctly, see page 35 "Turning On the Projector".
2	Check to see whether the projector is in Interactive Mode.	If Interactive Mode is set to [Off], switch it to [On]. For details about how to check whether the projector is in Interactive Mode, as well as how to specify the mode, see page 84 "Enabling Interactive Mode".
3	Check to see whether the computer USB adapter is connected to in the computer.	If the computer USB connector is not connected, connect it to one of the USB ports on the computer.
4	Check to see whether the computer USB adapter inserted in the computer is registered to the projector.	When registered, the computer USB adapter flickers once every 0.5 seconds. Then, when the projector and the computer USB adapter are recognized, the adapter flickers once every two seconds. If the adapter flickers twice every 0.5 seconds, the projector needs registering. To register it correctly, see page 85 "Registering the Computer USB Adapter".
5	Check that the computer is connected to the projector using RGB cables or an HDMI cable.	The interactive function becomes inoperable if anything other than RGB cables or an HDMI cable is used. To connect these correctly, see the page 30 "Connecting to the RGB out port" or page 30 "Connecting to the HDMI port".
6	Check that the computer screen is projected on the projector screen.	The electronic pen is not recognized unless the computer screen is projected. To project the screen correctly, see page 36 "Projecting an Image".
7	Check to see whether the power switch of the electronic pen is set to "On".	If the power switch of the electronic pen is set to "Off", turn it to "On". For details about the location of the power switch of the electronic pen, see page 92 "Electronic Pen Parts and Their Functions".

Step	Check item	Solutions
8	Check to see whether the battery of the electronic pen is out of charge.	When the power switch on the electronic pen is turned on, the communication indicator on the electronic pen flickers. If the indicator fails to flicker, check that a rechargeable battery is installed in the electronic pen. If a rechargeable battery is installed, recharge it. For details, see page 95 "Installing a Rechargeable Battery into the Electronic Pen" and page 97 "Recharging the Electronic Pen".
9	Point the electronic pen nib toward the projected screen and check to see whether the electronic pen is recognized by the projector.	If the electronic pen is recognized correctly, the pointer on the projection screen will move in unison with the movement of the electronic pen. For details about how to make the projector recognize the electronic pen, see page 88 "Enabling the Projector to Recognize the Electronic Pen".

Note

- If you experience a problem with the actual projector, such as a problem starting the projector or projecting computer screens, see page 139 "Troubleshooting".
- If you cannot resolve problems, contact your service representative.

When the Projected Screen Cannot Be Operated As Wanted

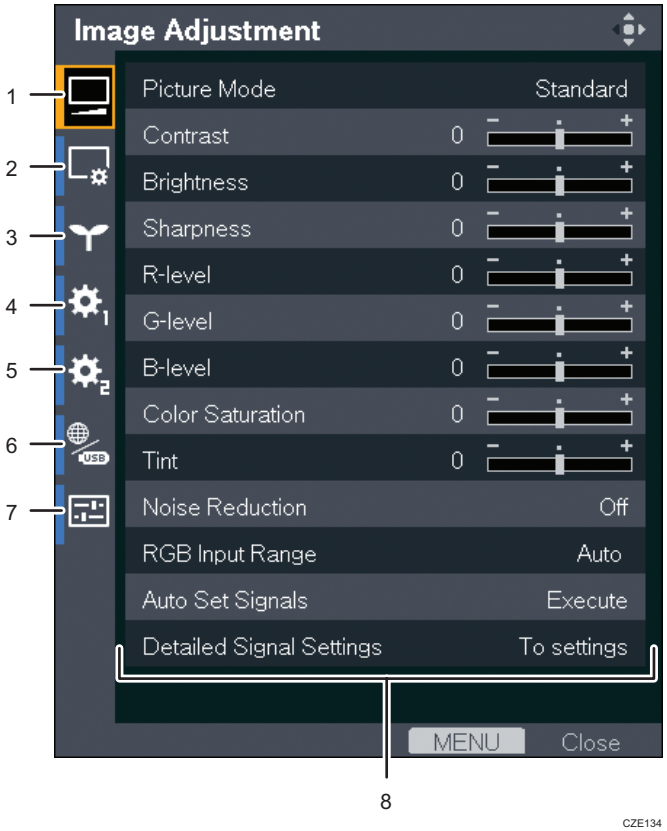
This section explains what to do when the projected screen cannot be operated as wanted.

Problem	Solutions
The location the pen nib points at does not correspond with what is displayed on the screen.	• Change the display settings using the computer's graphic driver, so that the screen projected is not scaled by the computer. (Example: Display > General Settings > Scaling > Maintain Display Scaling) • Change the computer output settings so that only the projector screen is displayed. For details about settings, see the computer manual.

7. Changing the Projector Settings

This chapter explains the settings on the menu screen and how to change the settings.

Viewing the Menu Screen



1. **Image Adjustment menu tab**

   Adjusts the settings for the projected image, such as contrast and brightness.

   For the Image Adjustment menu settings, see page 106 "Image Adjustment Menu".

2. **Display/Sound Settings menu tab**

   Specifies the settings for image display and sound, such as auto keystone correction and sound quality.

   For the Display/Sound Settings menu settings, see page 110 "Display/Sound Settings Menu".

3. **Energy Saving Settings menu tab**

   Specifies the settings for energy saving.

   For the Energy Saving Settings menu settings, see page 114 "Energy Saving Settings Menu".

4. **Default Settings 1 menu tab**

   Specifies the settings for the beep sound, user logo, etc.

   For the Default Settings 1 menu settings, see page 116 "Default Settings 1 Menu".

5. **Default Settings 2 menu tab**

   Specifies the settings for the display language, startup password, etc.

   For the Default Settings 2 menu settings, see page 118 "Default Settings 2 Menu".

6. **Network/USB Settings menu tab**

   The Network/USB Settings menu tab includes the USB Settings menu, Network Settings menu, and Network Application Settings menu.

   - USB Settings menu

     Specify the settings for USB file projection.

     For the USB Settings menu settings, see page 121 "USB Settings Menu".

   - Network Settings menu

     Specify the network settings, such as an IP address.

     For the Network Settings menu settings, see page 123 "Network Settings Menu".

   - Network Application Settings menu

     Specify the settings for PJLink, Projection Server, etc.

     For the Network Application Settings menu settings, see page 131 "Network Application Settings Menu".

7. **Display Status tab**

   Enables information such as input signals and lamp usage time, etc., to be displayed.

   For item that can be displayed, see page 137 "Display Status".

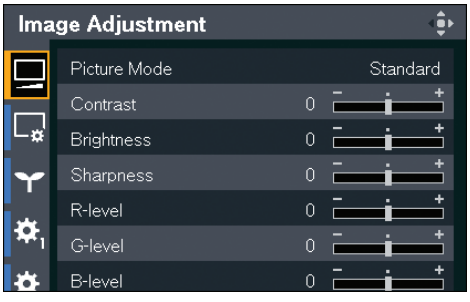
8. **Settings**

   The settings and information for each menu can be displayed.

Changing the Settings

1. **Press the [Menu] button.**

2. **Select the menu tab using the [▲] and [▼] buttons.**

   If you select the Display Status tab, you can confirm the information in this step.

3. **Press the [▶] button.**
4. **Select the item to be changed using the [▲] and [▼] buttons.**
5. **Press the [Enter] button.**

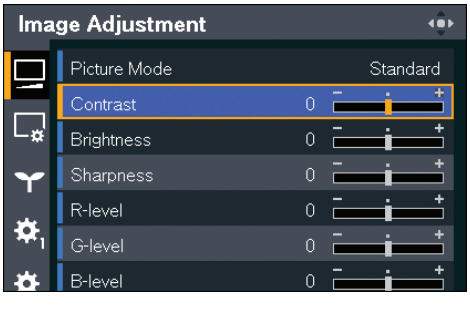
   If [To settings] is displayed on the right, the item has a submenu. Select an item on the submenu, and then press the [Enter] button.

   If [Execute] is displayed to the right of the item you select, the function is executed in this step.

6. **Change the settings.**

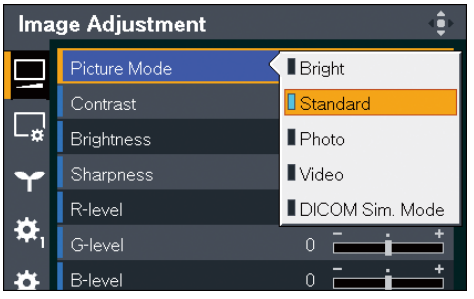
   - Adjusting values using the values bar

     Change the value using the [◀] and [▶] buttons, and then press the [Enter] button.

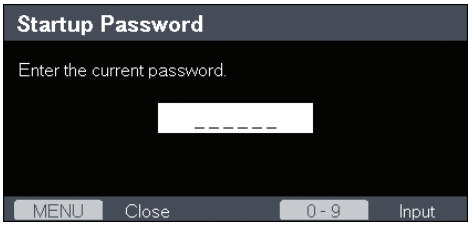
   - Selecting the value from a list

     Change the value using the [▲], [▼], [◀], and [▶] buttons, and then press the [Enter] button.



- Inputting numbers

  Use the number buttons on the remote control to input numbers.



- Inputting text

  Use the keyboard that is displayed on screen to input text. You can also use the number buttons on the remote control to input numbers.

7

7. **If a confirmation screen appears, select [OK], and then press the [Enter] button.**
8. **Press the [Menu] button.**
9. **If a confirmation screen appears, select [Reflect], and then press the [Enter] button.**

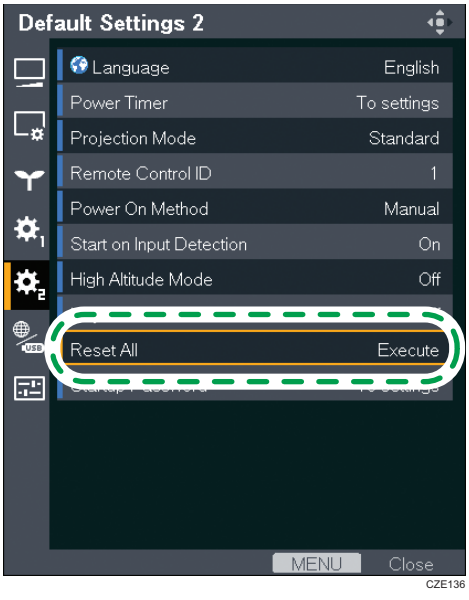
Note

- The Network/USB Settings menu tab includes the USB Settings menu, Network Settings menu, and Network Application Settings menu. Open the menu according to the settings you want to change, and then go to Step 2 to change the settings.
- The menu screen closes automatically thirty seconds after the last operation. Changes to the settings are automatically applied when you close the menu screen. You do not need to press the [Enter] button.
- Settings in the Network/USB Settings menu are not applied until you select [Reflect] on the confirmation screen.
- The menu screen is not accessible if you are projecting images from a USB memory device or server. Stop projecting the images to open the menu screen.

Restoring All the Settings to Their Defaults

1. **Press the [Menu] button.**

2. **Select [Default Settings 2], and then press the [▶] button.**
3. **Select [Reset All], and then press the [Enter] button.**



CZE136

4. **Select [OK] in the confirm screen, and then press the [Enter] button.**

Note

- The start menu is displayed after [Reset All] is executed. For details about the start menu, see page 36 "When the start menu is displayed".
- The following settings cannot be reset with this function:
  - [User Logo] in [Default Settings 1]

    To reset the registered user logo, select [Reset Logo] in [Default Settings 1].
  - [Current Time] and [Startup Password] in [Default Settings 2]
  - [Administrator Authentication] and [Administrator Password] in [Network Application Settings]

    To reset the registered passwords, contact your service representative.

Image Adjustment Menu

Item	Default
Picture Mode Select the picture mode. This function is not available when you select [On] in [3D Projection] under [Display/Sound Settings] or [On] in [Interactive Mode] under [Default Settings 1]. • Bright This image mode makes it easier to see the projection in bright locations. • Standard This is the standard image mode. • Photo Photos appear more natural in this mode. • Video Video is smoother in this mode. • DICOM Sim. Mode In this image mode, the images are adjusted to simulate the DICOM format. DICOM is a global standard for storing and transmitting medical images. DICOM is used for computer tomography (CT), magnetic resonance imaging (MRI), and endoscope images. However, this mode only simulates these formats, so the image may be projected differently from the original DICOM format. Use this mode only for education. It should not be used for actual diagnoses.	**Standard**
Contrast Adjust the image contrast. The greater the value, the stronger the image contrast.	0
Brightness Adjust the image brightness. The greater the value, the brighter the image.	0
Sharpness Adjust the sharpness of the image. The greater the value, the sharper the image.	0

Item	Default
R-level Adjust the level of red in the image. The greater the value, the stronger the color red is in the image.	0
G-level Adjust the level of green in the image. The greater the value, the stronger the color green is in the image.	0
B-level Adjust the level of blue in the image. The greater the value, the stronger the color blue is in the image.	0
Color Saturation Adjust the color saturation of the image. The greater the value, the richer the image. This function is available when you select [Y/Pb/Pr] or [Video] as an input signal.	0
Tint Adjust the tint of the image. This function is available when you select [Y/Pb/Pr], [HDMI] (Y/Pb/Pr signals), or [Video] as an input signal.	0
Noise Reduction Specify whether or not to use the function to reduce the Y/Pb/Pr (480i/576i) or video signal noise. This function is available when you select [Y/Pb/Pr] (480i/576i) or [Video] as an input signal.	Off

Item	Default
RGB Input Range Select the RGB input range. This function is available when you select [HDMI] (RGB signals) as an input signal. • Auto The projector switches RGB input range according to the settings of the connected equipment. • Standard Select this mode when the color black in the image is light. • Full Select this mode when dark parts in the image are too dark.	Auto
Auto Set Signals Automatically adjust the items in [Detailed Signal Settings]. This function is available when you select [Computer] as an input signal.	-
Detailed Signal Settings > Phase Adjust to eliminate image flicker. This function is available when you select [Computer] as an input signal.	0 to 31*1
Detailed Signal Settings > Frequency Adjust to eliminate moiré patterns and flicker when you project images with thin vertical-stripes. This function is available when you select [Computer] as an input signal.	0
Detailed Signal Settings > H-position Adjust the horizontal position of the image. This function is available when you select [Computer] as an input signal.	0
Detailed Signal Settings > V-position Adjust the vertical position of the image. This function is available when you select [Computer] as an input signal.	0
Detailed Signal Settings > Clamp Pulse 1 Adjust the clamp pulse position. This function is available when you select [Computer] as an input signal.	0 to 255*1

Item	Default
Detailed Signal Settings > Clamp Pulse 2 Adjust the clamp pulse width. This function is available when you select [Computer] as an input signal.	0 to 255*1

*1 The default of [Phase], [Clamp Pulse 1], and [Clamp Pulse 2] is variable because the projector automatically adjusts these settings according to the input signal.

Display/Sound Settings Menu

Item	Default
Auto Keystone Specify whether or not to implement keystone correction automatically depending on the angle of the projector's position.	On
Keystone Adjust for keystone distortion. To decrease the width of the bottom of the projected image, decrease the value. To decrease the width of the top of the projected image, increase the value.	0
Zoom Reduce the size of the image if the projected image is larger than the screen. The image can be reduced in a range of 80 to 100% using the digital zoom function.	100%

Item	Default
Aspect Select the aspect ratio of the image. This function is not available when you select [USB Memory] or [Server] as an input signal. When you select [Network PC] as an input signal, this function is available only while you are projecting a computer's screen using QuickProjection. • Normal Display in full screen without changing the input signal aspect ratio. • 16:9 Display using 16:9 aspect ratio (1280 × 720 resolution). • Full Display using 1280 × 800 resolution. • Native Display the image without changing the resolution of the input signal. This setting is available when you select [Computer], [HDMI] (RGB signals), or [Network PC] as an input signal. • Zoom Display the image width as the projection screen width while maintaining the input signal aspect ratio.	**Normal**
Display Position Move the image if the projected image is smaller or larger than the projection screen size. You can move the image using the [▲], [▼], [◀], and [▶] buttons. This function is not available when you select [Network PC], [USB Memory], or [Server] as an input signal.	-

Item	Default
Wall Color Mode Select the image hue according to the projection surface when the image is being projected on something other than a screen. • Off • Whiteboard • Beige • Gray • Blackboard (Green)	Off
3D Projection > 3D Projection Specify whether or not to use 3D projection. The image will be slightly darker if this is set to [On]. 3D projection and interactive mode cannot be enabled simultaneously. If you change this setting to [On], [Interactive Mode] in [Default Settings 1] is switched to [Off].	Off
3D Projection > L/R Reverse Specify whether or not to reverse left and right in a 3D image. • Normal • Reverse	Normal
3D Projection > 3D Format Select a 3D format. Select [Auto] when the 3D signals are input through HDMI. If the image does not project in 3D even if [Auto] is selected, change the setting to match the 3D format of the signal being input. • Auto • Frame Sequential • Side by Side • Top and Bottom • Frame Packing	Auto

Item	Default
Closed Caption The projector supports closed captioning, which allows subtitles to be displayed at the bottom of the picture. This is pursuant to the regulations set forth by the US Federal Communications Commission (FCC). Select [CC-1] to [CC-4] to display the dialogue and narration of TV programs and videos that are closed captioned. This function is available when you select [Video] as an input signal. • Off • CC-1 • CC-2 • CC-3 • CC-4	**Off**
Sound Quality Select the sound quality of the audio that is playing. This function applies to the built-in speaker on the projector only. If you use an external speaker, you cannot change the sound quality with this function. • Standard Dialog and music are carefully balanced. • Narration This mode is suitable for listening to dialog. • Music This mode is suitable for listening to music.	**Standard**

Energy Saving Settings Menu

Item	Default
Lamp Power Select the lamp power level. To save energy, select the eco mode. To make images brighter, select the standard mode. The lamp power is switched to the standard mode regardless of this setting when [DICOM Sim. Mode], [3D Projection], or [Interactive Mode] is enabled. • Eco • Stnd.	**Stnd.**
Lamp Pwr on No Signal Specify whether or not to lower the lamp power when there is no input signal. If you select [Eco], the projector lowers the lamp power thirty seconds after the input signal disappears. • Eco • Stnd.	**Eco**
Image Eco Specify whether or not to switch the lamp power automatically depending on the brightness of the image. This function does not work when [DICOM Sim. Mode], [3D Projection], or [Interactive Mode] is enabled.	**On**
Power Off on No Signal Select the amount of time from the last input signal or operation until the projector enters standby mode. • Off • 5 min. • 10 min. • 20 min. • 30 min.	**20 min.**

Item	Default
Power on Standby Specify whether or not to save energy while in standby. • Eco You can save energy while in standby, but start-up time is slower. • Q'ck On You can turn on the projector quickly, but the standby energy level is higher.	**Eco**
NW Settings on Standby Select a network function to be enabled while in standby. You can save energy by disabling the network function. This function is available when you select [Eco] in [Power on Standby]. • Do not Use Disable the wired LAN and the wireless LAN while in standby to save energy. To use the wired LAN or the wireless LAN, press the [Power] button to turn on the projector. • Wired LAN You can turn on the projector from standby mode via a wired LAN. • Wired/Wireless LAN You can turn on the projector from standby mode via a wired LAN or wireless LAN.	**Wired LAN**

Note

- The image may flicker, depending on the characteristics of the lamp, when the lamp power is cut by the lamp settings. If this happens, specify the lamp settings as follows:
  - Lamp Power: Stnd.
  - Lamp Pwr on No Signal: Stnd.
  - Image Eco: Off

Default Settings 1 Menu

Item	Default
Auto Input Search Specify whether or not to switch to another input signal that the projector detects when you press the [Input] button.	On
Beep Specify whether or not to beep during use.	On
Background on No Signal Select the image display when there is no input signal. • Logo • Blue • None	Logo
Display Guidance Specify whether or not to display the guidance for operating the projector.	On
Start-up Screen Specify whether or not to display the start-up screen when the projector is turned on.	On
User Logo > Register Logo Register a user logo. Project the image to be registered as a user logo, and then execute this function. User logos can be displayed in the start-up screen or as the background when there are no input signals. You can register an image with a resolution of up to 1280 × 800 pixels. This function is available when you select [Computer], [HDMI] (RGB signals), or [Network PC] as an input signal.	-
User Logo > Confirm Logo Display the registered user logo.	-
User Logo > Reset Logo Delete the registered user logo.	-

Item	Default
Interactive > Interactive Mode (RICOH PJ WX4141NI only) Specify whether or not to enable the interactive mode. For details about the interactive mode, see page 83 "Using the Interactive Function (RICOH PJ WX4141NI only)". The interactive mode and 3D projection cannot be enabled simultaneously. If you change this setting to [On], [3D Projection] in [Display/Sound Settings] is switched to [Off].	Off
Interactive > PC Adapter Registration (RICOH PJ WX4141NI only) Register the computer USB adapter to the projector to use the interactive mode. For details about how to register the computer USB adapter, see page 85 "Registering the Computer USB Adapter". This function is not available when you select [Video] as an input signal.	-

Default Settings 2 Menu

Item	Default
Language Select the display language. Available languages are as follows: English, Japanese, Spanish, Russian, French, Portuguese, German, Italian, Dutch, Polish, Czech, Swedish, Finnish, Hungarian, Norwegian, Danish, Romanian, Greek, Turkish, Arabic, Thai, Indonesian, Simplified Chinese, Traditional Chinese, Korean.	**English**
Power Timer > Current Time Specify the current time and day of the week.	**Sun. 0:00**
Power Timer > Power Timer Specify whether or not to enable the power timer function. When you enable this function, the projector automatically starts projection and turns off at the specified time. If you select [On], specify [Projection Day] and [Projection Time] to enable this function.	**Off**
Power Timer > Projection Day Select a day of the week to start projecting using the power time function.	(Not programmed)
Power Timer > Projection Time Specify the time to start and end projecting using the power timer function. An interval of at least ten minutes is required between the startup time and the end time.	(Not programmed)

Item	Default
Projection Mode Select the projection method according to how the projector is positioned. • Standard Select this mode when the projector is placed in front of a screen. • Rear Select this mode when the projector is placed behind a screen. • Ceiling Select this mode when the projector is mounted on the ceiling in front of a screen. • Rear Ceiling Select this mode when the projector is mounted on the ceiling behind a screen.	**Standard**
Remote Control ID Select the projector remote control ID. Specify the ID for each projector when operating multiple projectors using one remote control. • 1 • 2 • 3 • 4	**1**
Power On Method Select the power on method of the projector. • Manual Turn the projector on when the [Power] button is pressed. • Auto. Automatically turn on the projector when the power cord is connected.	**Manual**
Start on Input Detection Specify whether or not to start projecting automatically if the image signals are input while in standby.	**On**

Item	Default
High Altitude Mode The number of fan rotations is high when set to [On]. The air is thin at high elevations, so the cooling efficiency of the projector is reduced. Select [On] when using the projector at an altitude of more than 1,500 meters (4,921 feet). Do not select [On] when the altitude is less than 1,500 meters (4,921 feet).	Off
Key Lock Specify whether or not to lock the buttons on the control panel. You can change this setting to [Off] by pressing the [AV Mute] button on the projector's control panel for 10 seconds.	Off
Reset All Reset all menus to their defaults. This function cannot restore the default settings of [User Logo] in [Default Settings 1], [Current Time] and [Startup Password] in [Default Settings 2], [Administrator Authentication] and [Administrator Password] in [Network Application Settings].	-
Startup Password > Register Password Enter a 6-digit password. The current password is required to change the password.	000000
Startup Password > Password Protect Specify whether or not to enter a password when the projector is turned on. If this is selected, a password must be entered when the projector is turned on after the power cord has been unplugged. However, a password is not required when turning the projector on from the standby mode. A password is required to change this setting.	Off

USB Settings Menu

This section explains the items in the USB Settings menu under the Network/USB Settings menu tab.

You can also specify and check the items in the USB Settings menu using Web Image Monitor. However, the following items are available only on the menu screen.

- [Remove USB Mem.] in [Settings]
- [USB Memory Free Space (KB)] and [USB Memory Access Status] in [Display Status]

On Web Image Monitor, you can check [Network/USB Func. Firmware Version] and [Energy Saving IO Firmware Version] on the top page.

For details about Web Image Monitor, see page 159 "Managing the Projector Using Web Image Monitor".

Settings

Still Image

Item	Default
Display Effect Select the display effect for switching the image. • None • Push The current image is pushed off by the next image. • Wipe The current image is wiped off by the next image. • Fade The current image fades out and the next image fades in.	None
Display Interval (sec.) Enter the slide show switching interval from 5 to 999 seconds.	5 seconds

Moving Image

Item	Default
Repeat Specify whether or not to repeat video playback.	Off

Common

Item	Default
Auto Start Slideshow Specify whether or not to start a slide show automatically when the projector is connected to the USB device.	Off
Remove USB Mem. The USB device can be removed when this command is executed.	-

Display Status

USB Memory

Item	Default
USB Memory Free Space (KB) Display the space available on the USB device (Displayed in KB).	-
USB Memory Access Status Display whether or not the USB device can be accessed.	-

Firmware Version

Item	Default
Network/USB Func. Firmware Version Display the firmware version of the network and USB functions.	-
Energy Saving IO Firmware Version Display the energy-saving IO firmware version.	-

Network Settings Menu

This section explains the items in the Network Settings menu under the Network/USB Settings menu tab.

You can also specify and check the items in the Network Settings menu using Web Image Monitor. However, the following items are available only on the menu screen.

- [Simple Wireless LAN Setup] and [Reset Wireless LAN Settings] in [Wireless LAN]
- [Import Device Certificate] and [Certificate List] in [LAN Common]
- [Network Setting Wizard] in [Setup Wizard]

On Web Image Monitor, you can check [Network/USB Func. Firmware Version] and [Energy Saving IO Firmware Version] on the top page.

For details about Web Image Monitor, see page 159 "Managing the Projector Using Web Image Monitor".

Wired LAN

Wired LAN Settings

Item	Default
Transmission Speed Select a wired LAN speed that matches your network environment. It is recommended that [Auto-Negotiation] be selected. • Auto-Negotiation • 10BASE-T Full Duplex • 10BASE-T Half Duplex • 100BASE-TX Full Duplex • 100BASE-TX Half Duplex	**Auto-Negotiation**

TCP/IP Settings

Item	Default
DHCP Specify whether to enable or disable DHCP. The IP address is allocated automatically from the DHCP server when [Enable] is selected. When [Disable] is selected, enter the IP address, subnet mask, and default gateway manually.	**Enable**

Item	Default
IP Address Enter the projector's IP address.	0.0.0.0
Subnet Mask Enter the subnet mask.	0.0.0.0
Default Gateway Enter the default gateway.	0.0.0.0

Wireless LAN

Simple Settings

Item	Default
Simple Wireless LAN Setup Acquire the wireless LAN settings registered in the access point, and specify infrastructure mode wireless LAN settings for the projector automatically. This function may not work depending on the access point.	-

Wireless LAN Settings

Item	Default
Communication Mode Select the wireless LAN communication mode. • Infrastructure Select this mode when you want to connect the projector to a wireless LAN network. You need to specify [SSID] and items in [Security] and [TCP/IP Settings] in this mode. • Adhoc Select this mode when you want to connect the projector and the computer directly. The projector specifies [SSID] and items in [Security] and [TCP/IP Settings] automatically in this mode.	Adhoc

Item	Default
SSID Enter the SSID to connect to a wireless LAN network when [Infrastructure] is selected. Enter up to 32 characters.	(blank)
Channel Select the channel to use when [Adhoc] is selected. Select the channel that matches the type of wireless LAN being used. The channels available might differ depending on the country. • 2.4 GHz: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	11

Security

Item	Default
Authentication Method Select the wireless LAN authentication method. • Open System • WEP Shared Key • WPA-PSK • WPA2-PSK	Open System
Encryption Method Select the wireless LAN encryption method. If you select [No Encryption], the communication is not encrypted. [No Encryption] is selectable only when you select [Open System] in [Authentication Method]. Select [WEP] when you select [Open System] or [WEP Shared Key] in [Authentication Method]. Select [TKIP] or [CCMP] when you select [WPA-PSK] or [WPA2-PSK] in [Authentication Method]. • No Encryption • WEP • TKIP • CCMP	No Encryption

Item	Default
Transmission WEP Key Number Select the key number used to authenticate and encrypt transmissions when you select [WEP] in [Encryption Method]. • 1 • 2 • 3 • 4	1
Network Key Enter the WEP key when you select [WEP Shared Key] or [Open System] in [Authentication Method] and select [WEP] in [Encryption Method]. When using 64 bit WEP, up to 10 characters can be used for hexadecimal and up to 5 characters for ASCII. When using 128 bit WEP, up to 26 characters can be used for hexadecimal and up to 13 characters for ASCII. Enter PSK when [WPA-PSK] or [WPA2-PSK] is selected in [Authentication Method]. When using a PSK, up to 64 characters can be used for hexadecimal and 8 to 63 characters for ASCII.	(blank)

TCP/IP Settings

Item	Default
DHCP Specify whether to enable or disable DHCP. The IP address is allocated automatically from the DHCP server when [Enable] is selected. If you select [Disable], manually enter the IP address, subnet mask, and default gateway.	**Disable**
IP Address Enter the projector's IP address.	0.0.0.0
Subnet Mask Enter the subnet mask.	0.0.0.0

Item	Default
Default Gateway Enter the default gateway.	0.0.0.0

Reset Wireless LAN Settings

Item	Default
Reset Wireless LAN Settings Restore all the wireless LAN settings to their defaults.	-

LAN Common

Specify the wired LAN and wireless LAN settings.

Network Interface

Item	Default
Network Interface Select the network interface to be used. • Wired LAN • Wireless LAN • Wired LAN Priority Give priority to wired LAN if connected to the network via an Ethernet cable. Disconnect the Ethernet cable when using a wireless LAN. • Disable	**Wired LAN Priority**

DNS Settings

Item	Default
Primary DNS Server Address Enter the IP address of the primary DNS server.	0.0.0.0
Secondary DNS Server Address Enter the IP address of the secondary DNS server.	0.0.0.0

Item	Default
Host Name Display the projector's host name. The [Projector Name] in [Projector ID] is used as the projector's host name.	-
Domain Name Enter the projector's domain name. Enter up to 63 characters.	(blank)

Projector Search Settings

Item	Default
Projector Search Specify whether or not to search for the projector automatically when the projector and the device connected to the projector are on the same network.	**Enable**

HTTP Client Settings

Item	Default
HTTP Proxy Server Port Enter an HTTP proxy server port that is between 1 and 65535.	**80**
HTTP Proxy Server Name Enter an HTTP proxy server name that is up to 128 characters.	(blank)
HTTP Proxy User Name Enter an HTTP proxy user name that is up to 31 characters.	(blank)
HTTP Proxy Password Enter an HTTP proxy password that is up to 31 characters.	(blank)

HTTP Server Settings

Item	Default
HTTP Port Enter an HTTP port that is between 1 and 65535.	**80**

Manage Certificate

Item	Default
Import Device Certificate Import the device certificate saved on the USB memory device to the projector. Insert the USB memory device into the USB port on the projector to display the file list. Select the device certificate to be imported from the file list.	-
Certificate List The list of device certificates is displayed. You can confirm details about the device certificate or delete it in this screen.	-

Projector ID

Item	Default
Projector Name Enter an ID to identify the projector on the network. Enter up to 16 characters. You can use alphanumeric characters, hyphens, and periods for projector names. Only a letter can be used for the first character of the projector's name. Hyphens and periods cannot be entered consecutively and cannot be used for the last character of the projector's name.	RPJxxxxxx*1
Identification Code Enter the 4-digit identification code for connecting the projector and the computer using QuickProjection.	0000 to 9999*2

*1 xxxxxx is the last six digits of the wired LAN's MAC address.

*2 Each projector has a unique identification code as the default setting.

Setup Wizard

Item	Default
Network Setting Wizard Open Network Setting Wizard. For details about Network Setting Wizard, see page 67 "Connecting the Projector to a Network".	-

Display Status

Wired LAN

Item	Default
Current wired LAN settings are displayed. You can confirm the following items: Connection Status, MAC Address, Transmission Speed, IP Address, Subnet Mask, Default Gateway	-

Wireless LAN

Item	Default
Current wireless LAN settings are displayed. You can confirm the following items: Connection Status, Radio Field Intensity, MAC Address, Access Point BSSID, Communication Mode, Transmission Speed, Channel, SSID, Authentication Method, Encryption Method, IP Address, Subnet Mask, Default Gateway	-

Firmware Version

Item	Default
Network/USB Func. Firmware Version Display the firmware version of the network and USB functions.	-
Energy Saving IO Firmware Version Display the energy-saving IO firmware version.	-

Network Application Settings Menu

This section explains the items in the Network Application Settings menu under the Network/USB Settings menu tab.

You can also specify and check the items in the Network Application Settings menu using Web Image Monitor. However, the following items are available only on the menu screen.

- [Crestron WebUI User Auth.], [Crestron WebUI User Password], [Crestron WebUI Admin. Auth.], [Crestron WebUI Admin. Password], [Control System IP Address], [Control System IP ID], and [Control System Port] in [Administration Tools]
- [DLNA Certification Mode] in [Server]
- [@Remote: Firmware Updating] in [Firmware Update]

On Web Image Monitor, you can check [Network/USB Func. Firmware Version] and [Energy Saving IO Firmware Version] on the top page.

For details about Web Image Monitor, see page 159 "Managing the Projector Using Web Image Monitor".

Administration Tools

Web Image Monitor

Item	Default
Web Image Monitor Specify whether or not to allow the projector settings to be changed and checked using a web browser. To enable this setting, you must restart Web Image Monitor after making the change. For details about Web Image Monitor, see page 159 "Managing the Projector Using Web Image Monitor".	**Enable**

AMX Device Discovery

Item	Default
AMX Device Discovery Specify whether or not to allow the projector to be controlled and monitored by AMX Device Discovery. To use this function, an AMX controller is required in your network environment. For details about AMX Device Discovery, see the AMX LLC website.	**Disable**

Crestron RoomView

Item	Default
Crestron RoomView Specify whether or not to allow the projector to be controlled and monitored by Crestron RoomView. For details about Crestron RoomView, see page 162 "Controlling and Monitoring the Projector Using Crestron RoomView".	**Disable**
Crestron WebUI User Auth. Specify whether or not to restrict access to Crestron WebUI with a password.	**Off**
Crestron WebUI User Password Enter the password for Crestron WebUI user authentication up to 26 characters.	(blank)
Crestron WebUI Admin. Auth. Specify whether or not to restrict access to the tools screen on Crestron WebUI with a password.	**Off**
Crestron WebUI Admin. Password Enter the password for Crestron WebUI administrator authentication up to 26 characters.	(blank)
Control System IP Address Enter the IP address of Crestron Control System.	**0.0.0.0**
Control System IP ID Enter the IP ID to connect to Crestron Control System.	**3**
Control System Port Enter the port number for communicating to Crestron Control System.	**41794**

PJLink

Item	Default
PJLink Authentication Specify whether or not to set PJLink authentication.	**Off**

Item	Default
PJLink Password Enter a password used when setting the PJLink authentication that is up to 32 characters.	(blank)

Security

Item	Default
Administrator Authentication Specify whether or not to set administrator authentication. A administrator password is required to change this setting. If administrator authentication is set, a password is required for the following operations: • Changing [Transmission WEP Key Number], [Network Key], [Crestron WebUI User Auth.], [Crestron WebUI User Password], [Crestron WebUI Admin. Auth.], [Crestron WebUI Admin. Password], [PJLink Authentication], and [PJLink Password] • Using the simple wireless LAN setup function and the [Network Setting Wizard] screen • Importing or deleting device certificates • Executing [@Remote: Firmware Updating] • Turning the projector on or off via a network • Changing the settings using Web Image Monitor	**Off**
Administrator Password Enter the administrator password up to 32 characters. The current password is required to change the administrator password.	(blank)

Server

Remote Projection Control

Item	Default
Remote Projection Control Specify whether or not to enable the Remote Projection Control function. The Remote Projection Control function allows you to project images from a tablet computer or a smartphone via a network. For details about how to project images using this function, see page 81 "Projecting Images Using DLNA-Compatible Devices".	**Enable**

Projection Server Settings

Item	Default
Server URL Enter the root URL of the server on which the files to be projected using the projection server functions are saved. Enter up to 128 characters.	(blank)
Index File Enter the name of the index file on the projection server. Enter up to 31 characters.	(blank)
HTTP Proxy Server Usage Specify whether or not to use a proxy server.	**No**
Access Restriction Type Specify whether or not to display the access number input screen when you access the projection server. Select [Access No.] if access to the projection server is restricted by an access number. • None • Access No.	**None**

Still Image

Item	Default
Display Effect Select the display effect for switching the image. • None • Push The current image is pushed off by the next image. • Wipe The current image is wiped off by the next image. • Fade The current image fades out and the next image fades in.	**None**
Display Interval (sec.) Enter the slide show switching interval from 5 to 999 seconds.	**5 seconds**

Moving Image

Item	Default
Repeat Specify whether or not to repeat video playback.	**Off**
DLNA Certification Mode Specify whether the projector works as a DLNA-certified device. The projector is certified to DLNA 1.5 guidelines for still images. For details about the supported file types, see page 75 "Using the Server Function". • Enable The projector works as a DLNA-certified device. Of the video files sent from the DLNA server, those files that are not DLNA compatible are shown on the file list of the Server Projection screen. • Disable The projector works according to its own specifications. It does not work as a DLNA-certified device. All the video files delivered from the DLNA server appear in the file list of the Server Projection screen.	**Disable**

Firmware Update

The following items are available only for users who sign up for the @Remote service.

Item	Default
@Remote: Notify Firmware Update Specify whether or not to display a message for firmware update notification.	**Yes**
@Remote: Firmware Updating Execute firmware update via the @Remote service.	-

Display Status

PJLink

Item	Default
PJLink Class Display the PJLink class.	-

Firmware Version

Item	Default
Network/USB Func. Firmware Version Display the firmware version of the network and USB functions.	-
Energy Saving IO Firmware Version Display the energy-saving IO firmware version.	-

Display Status

Item
Input Displays the selected input signals.
Resolution Displays the resolution. This item appears when you select [Computer] or [HDMI] as an input signal.
Frequency Displays the synchronous frequency. This item appears when you select [Computer] or [HDMI] as an input signal.
Sync Displays the synchronous signal polarity. This item appears when you select [Computer] as an input signal.
Signal Format Displays the Y/Pb/Pr signal format. This item appears when you select [Y/Pb/Pr] or [HDMI] (Y/Pb/Pr signals) as an input signal.
Video Mode Displays the video signal color format. This item appears when you select [Video] as an input signal.
Lamp Time Displays the lamp usage time.
Lamp Reset Count Displays the number of lamp replacements.
Total Time Displays the projector usage time.
Total CO2 Reduction Displays the total reduction in CO_2 caused by setting the lamp to the eco mode.
Eco Time Ratio Displays the ratio of the time eco mode was used to the total use time.

Item
Current Time Displays the current time if you specify [Current Time] in [Default Settings 2].
Main FW Version Displays the version of the firmware on the main board.
Interactive Version (RICOH PJ WX4141NI only) Displays the version of the interactive function.

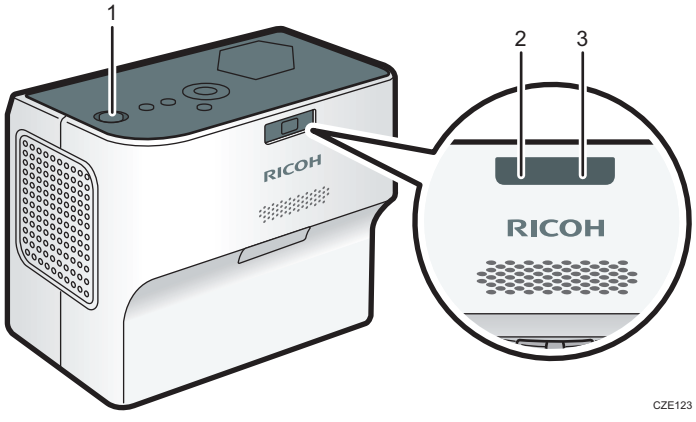
8. Troubleshooting

This chapter explains the basic problems and troubleshooting methods when an indicator light is lit.

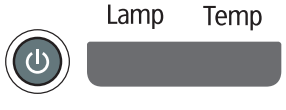
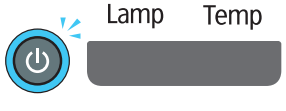
Indicator Display List

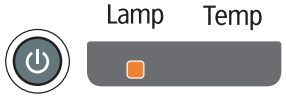
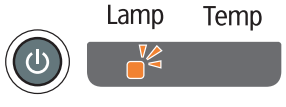
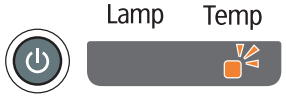
The projector uses the [Power] button, indicators, and beeps to notify you if a malfunction occurs. Check the indicator's status, and implement the following measures. "⚠" in the table means the indicator is flashing.

Indicator location



1. **[Power] button**
2. **Lamp indicator**
3. **Temp indicator**

Status	Causes	Solutions
The projector does not turn on. 	The projector has malfunctioned.	Disconnect the power cord, and contact your service representative.
"Hardware Error" was displayed, and the projector turned off during operation. 	The projector has malfunctioned.	Disconnect the power cord, wait a while, and then turn on the projector again. If the problem cannot be resolved, contact your service representative.

Status	Causes	Solutions
The lamp turned off during operation, or it does not turn on 	• The lamp has overheated and cannot turn on. • The lamp's service life has expired. • The projector has malfunctioned.	• Disconnect the power cord, wait a while, and then turn on the projector again. • If the lamp burns out, replace it with a new lamp. For details of how to replace the lamp, see page 152 "Replacing the Lamp".
The lamp does not turn off. Flashing interval: 2 seconds	The projector has malfunctioned.	Disconnect the power cord, wait a while, and then turn on the projector again. If the problem cannot be resolved, contact your service representative.
The projector turned off during operation, or it does not turn on.  Flashing interval: 1 second	The lamp cover is not installed correctly.	Disconnect the power cord, and reinstall the lamp cover correctly. For details of how to install the lamp cover, see page 152 "Replacing the Lamp".
"Temperature Error" was displayed, and the projector turned off during operation. 	• The interior has overheated. • The projector is being used in a high-temperature environment.	Place the projector so that the intake and exhaust vents are not blocked. Disconnect the power cord, wait a while, and then turn on the projector again.
"Fan Error" was displayed, and the projector turned off during operation. 	The cooling fan in the projector has malfunctioned.	Disconnect the power cord, and contact your service representative.

Status	Causes	Solutions
"Installation Error" was displayed, and the projector turned off during operation, or it does not turn on. 	The projector's angle is too great.	Place the projector at a proper angle, and then turn it on again. For details about how to install the projector, see page 28 "Positioning the Projector".

Common Problems

If you think a malfunction has occurred, check the following before contacting your service representative.

Problem	Solutions
Power does not turn on.	• Make sure the power plug or connector is connected correctly. • Make sure the lamp cover is mounted correctly. For details, see page 152 "Replacing the Lamp".
Power turns off during use.	• Make sure the environment in which the projector is being used is within the acceptable temperature range. • Make sure the vents are not blocked.
No image.	• Make sure the input signal is switched correctly if [Auto Input Search] in [Default Settings 1] is set to [Off]. For details about how to switch the input signal, see page 36 "Projecting an Image". • Make sure the AV mute function is not turned on. For details, see page 45 "Temporarily Blanking the Image and Muting the Audio". • Check the settings of [Brightness] in [Image Adjustment]. For details, see page 106 "Image Adjustment Menu". • Make sure the computer or AV equipment is connected to the projector correctly. For details, see page 30 "Connecting Equipment to the Projector". • Make sure the computer's image output is switched correctly. For details, see page 37 "When projecting the screen of a laptop computer". • Make sure the computer or AV equipment is working properly.

Problem	Solutions
No sound.	• Make sure the input signal is switched correctly if [Auto Input Search] in [Default Settings 1] is set to [Off]. For details about how to switch the input signal, see page 36 "Projecting an Image". • Make sure the AV mute function is not turned on. For details, see page 45 "Temporarily Blanking the Image and Muting the Audio". • Check the speaker's volume adjustment. For details, see page 43 "Adjusting the Volume of the Speaker". • Make sure the computer or AV equipment is connected to the projector correctly. For details, see page 30 "Connecting Equipment to the Projector". • Make sure the computer or AV equipment is working properly.
Image is not projected normally.	• Make sure the input signal is compatible with the projector. For details, see page 169 "List of Compatible Signals". • Check the status of the video tape or other video source. • Execute [Auto Set Signals] in [Image Adjustment]. For details, see page 106 "Image Adjustment Menu". • Check the settings of the computer's graphics driver. For details, see the manual provided with the computer.
Image is blurred. Image is partially out of focus.	• Make sure the projection window is clean. For details, see page 150 "Cleaning the Projection Window". • Check the focus adjustment. For details, see page 39 "Adjusting the Focus". • Make sure the projection distance is within the projector's range. For details, see page 29 "Relationship Between the Projection Distance and the Screen Size". • Check the installation angles of the projector and screen. For details, see page 39 "Adjusting the Angle of the Projection". • Check the settings of [Sharpness] and [Phase] in [Image Adjustment]. For details, see page 106 "Image Adjustment Menu".

Problem	Solutions
Image is dark.	• Check the settings of [Brightness] and [Contrast] in [Image Adjustment]. For details, see page 106 "Image Adjustment Menu". • Make sure the lamp is not near the end of its service life. For details, see page 137 "Display Status". • Check the settings of [RGB Input Range] in [Image Adjustment]. For details, see page 106 "Image Adjustment Menu". • Make sure [3D Projection] in [Display/Sound Settings] is set to [Off]. For details, see page 110 "Display/Sound Settings Menu".
Color is faded. Tint is poor.	• Check the settings of [Color Saturation], [R-level], [G-level], and [B-level] in [Image Adjustment]. For details, see page 106 "Image Adjustment Menu". • Make sure the screen is clean. • Check the settings of [Wall Color Mode] in [Display/Sound Settings]. For details, see page 110 "Display/Sound Settings Menu". • Make sure the lamp is not near the end of its service life. For details, see page 137 "Display Status".
The projector's operation keys do not respond.	• Make sure [Key Lock] in [Default Settings 2] is not set to [On]. For details, see page 118 "Default Settings 2 Menu".

Problem	Solutions
The remote control does not respond.	• Make sure the ID assigned to the remote control and in the settings of [Remote Control ID] in [Default Settings 2] are the same. For details, see page 26 "Operating Multiple Projectors with the Remote Control". • Make sure the batteries in the remote control are not dead. • Make sure the batteries are correctly loaded into the remote control. For details, see page 25 "Loading Batteries into the Remote Control". • Make sure the remote control is inside its effective range. For details, see page 24 "Effective Range of the Remote Control". • Make sure there is nothing placed between the remote control and the projector. • Make sure the remote control receiver is not exposed to strong light.
Display language is unknown.	• Press the [Menu] button, and then select the display language in [Language / XXX] (XXX indicates the current display language) on the [⚙] tab. For details, see page 118 "Default Settings 2 Menu".
No images from USB devices.	• Make sure the USB memory device is connected correctly. • Make sure the connected USB memory device is compatible with the projector. For details, see page 47 "Requirements for Projecting Images from a USB Device". • Make sure there are JPEG or MPEG files saved on the USB memory device. • Make sure the compression format, file size, and other conditions are compatible with the projector. For details, see page 47 "Requirements for Projecting Images from a USB Device".
Wired LAN is disabled.	• Check the settings of [Wired LAN Settings] in [Network Settings] under [Network/USB Settings]. For details, see page 123 "Network Settings Menu".

Problem	Solutions
Wireless LAN is disabled.	• Check the settings of [Wireless LAN Settings] in [Network Settings] under [Network/USB Settings]. For details, see page 123 "Network Settings Menu". • Make sure there is nothing placed between the computer and the projector. • Make sure the operating system of the computer is compatible with QuickProjection. For details, see page 72 "How to Use QuickProjection". • To project images by ad hoc wireless communication, log on to the computer with administrator privileges. • Make sure that the projector is not in standby. • Move the projector and access points closer to each other. • Make sure the access point and projector are close to each other, and move devices that emit radio signals such as microwave ovens further away.

Accessing the Online Knowledge Base

If you have any questions about the projector, refer to the knowledge base. Visit our global website listed below, and then access a knowledge base page in your language.

http://www.ricoh.com/support/

You can search the knowledge base by product name or keyword.

9. Maintenance

This chapter explains the operating precautions and maintenance for the projector.

Operating Precautions

⚠CAUTION

- The machine's light uses a mercury vapor lamp that becomes high pressure when it is turned on. The lamp has the following characteristics, so be sure to handle it with care after understanding the contents. If the lamp explodes and either you are injured from broken pieces of glass, think you have gotten glass particles or mercury vapour in your eyes, or have inhaled glass particles or mercury vapour, contact a doctor immediately.
  - Deterioration or shock can cause the lamp's life span to end or the lamp to explode. If the lamp explodes, it may make a big noise.
  - The time that it takes for the lamp to reach its life span or explode depends on each individual lamp and its operating conditions. It is possible that it might explode the first time it is used.
  - If you use the lamp past its replacement period, the possibility of explosion increases.
  - If the lamp explodes, broken glass pieces may be scattered around the inside of the machine and ejected from the vent or other opening.
  - If the lamp explodes, a very small amount of mercury vapor in the lamp tube and broken glass pieces may be ejected from the vents or other opening.

Pay attention to the following points when using the projector:

- What to do if a lamp has exploded
  - If the lamp explodes, remove the power cord from the projector, leave the room while making sure it is thoroughly ventilated.
  - If the lamp explodes and you think that you have gotten glass particles or mercury vapor in your eyes or have inhaled either, contact a doctor immediately.
  - Clean up the area around the projector completely while being careful not to get injured from any broken glass pieces.
  - Throw away any food that was near the projector.
  - Ask your service representative to replace the lamp and inspect the projector.
- What to do if a battery has leaked
  - If leakage from a battery adheres to your skin, rinse it with water immediately, and then contact a doctor.
  - Wipe off the leakage with tissue paper while being careful not to touch it.

- Soak the tissue paper that you used in water, and then throw it away as burnable trash.

- When you carry the projector by hand, hold it with both hands and keep it in a horizontal position. If you hold the projector with one hand, its covers may come off or you may drop it.
- If moving the projector under conditions including vibration and shock, use both the packing case and included carrying bag. Transporting the projector using the carrying bag only may damage it due to shock or vibration. Further, transporting the projector in a damaged packing case may damage the projector, so use a packing case that is strong enough to protect the projector from shock or vibration.
- Do not apply volatile substances such as insecticide to the projector. Also, do not bring the projector into long-term contact with rubber or vinyl products. Doing so may cause discoloration or the paint to peel.
- The projector is not intended for long-term continuous operation. Further, do not use the projector before removing it completely from the packing case. If a malfunction occurs when using the projector under these conditions, a fee is charged for repair even if the warranty is still in effect.
- Do not use locations that may be hot, such as near a heater. Doing so may cause the projector to malfunction or reduce the service life.
- Avoid locations that may become smoky. Particulates may adhere to the optical parts, reducing the service life and causing the image to darken.
- Using the projector close to a television or radio may adversely affect the images and sound.
- Do not expose the projector to salt air or corrosive gas. Also, do not place the projector in a laboratory or other location where a chemical reaction might occur. Doing so may cause the projector to malfunction.
- Moving the projector from a low-temperature location to a high-temperature location may cause water droplets to form on the projector lens and parts due to condensation. Continued use under such conditions may cause malfunction, so do not use the projector until the water droplets have evaporated.
- The air is thin at high elevations, so the cooling efficiency of the projector is reduced. Select [On] in [High Altitude Mode] before using.
- Do not use the projector in an extremely inclined position (±20° or greater). Doing so may cause malfunction or reduce the service life.
- Clean the air filter regularly. If the filter becomes clogged, it may cause the inside of the projector to overheat and reduce the service life of the optical parts.
- If the air filter is damaged, replace it with a new one. Using a damaged air filter may allow dust or dirt to get inside the projector and cause the projector to stop working or malfunction.

Cleaning the Projector

⚠WARNING

- Do not remove any covers or screws that are not mentioned in this manual. There are high voltage components inside the machine that may cause electric shock. Contact your service representative if any of the machine's internal components require maintenance, adjustment, or repair.
- Do not disassemble or modify the machine. Doing so may cause injury or malfunction.

⚠WARNING

- Do not attempt to clean or replace parts for a machine that is installed in a high location on a wall or ceiling. Doing so may cause it to fall down, resulting in an injury.
- Do not open the lamp cover of a machine that is installed on a wall or ceiling. Doing so may cause the lamp cover to fall down. If the lamp is broken, pieces of glass may fall and cause an injury.
- Contact your sales or service representative to clean or replace parts for a machine that is installed on a wall or ceiling.

⚠CAUTION

- When performing maintenance on the machine, always disconnect the power cord from the wall outlet.

Cleaning the Air Filter

Important

- **If an air filter is damaged, replace it with a new one. Using a damaged air filter may cause the projector to stop operating or malfunction. For details, contact your sales representative or service representative.**

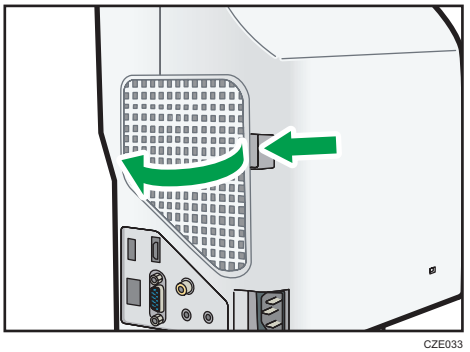
The air filter prevents dust and dirt from entering the interior of the projector. If you will use the projector in a dusty location, install the air filter.

A buildup of dust on the air filter may cause poor ventilation, causing the interior of the projector overheat and operations to stop or malfunction. Clean the air filter regularly.

If the message "Check the air filter for dirt." is displayed, check the air filter for dirt or dust, and use the following procedure to clean off any dirt or dust.

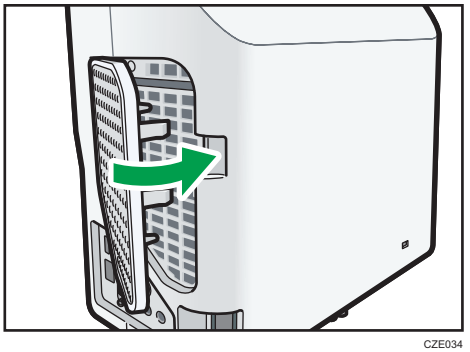
1. **Disconnect the power plug.**

2. **While pressing the lever on the right side of the air filter, pull the filter open.**



CZE033

3. **Remove the air filter.**
4. **Use a vacuum cleaner to clean any dirt or dust from the filter.**
5. **Install the air filter in the projector.**



CZE034

Insert the left side of the air filter in first, and then press the lever while pushing in the right side of the filter.

Make sure that the air filter is installed correctly. Otherwise, dirt and dust may enter the projector through any gaps and cause it to stop or malfunction.

Note

- The message is displayed for approximately 30 seconds every 500 hours after the projector is first turned on. The display closes when operation starts.
- If vacuuming the air filter does not remove the dust and dirt, wash it with water.
- If you wash the air filter with water, make sure it is completely dry before installing it.

Cleaning the Projection Window

When cleaning the projection window, make sure to do the following:

- Use a commercially available blower or cloth for cleaning glass, cleaning paper, lens cleaner, etc.

- The projection window surface scratches easily, so do not rub or tap it with a hard object.

Cleaning the Projector

When cleaning the projector, make sure to do the following:

- Gently wipe any dirt from the projector using a soft cloth. Using a damp cloth may cause water to seep inside the projector and cause electric shock or malfunction.
- Do not use benzene or paint thinners. Doing so may cause the projector to warp, discolor, or the paint to peel. Further, do not use cleaning cloths that contain chemicals.

Replacing the Lamp

⚠WARNING

- Before replacing the lamp, turn off the power and wait at least one hour to allow the machine to cool completely. If it is not completely cool, you may burn or injure yourself due to the inside of the machine and lamp unit being hot. If you replace the lamp without unplugging the power cord from the power outlet, electric shock or explosion may occur.
- Be careful when handling the used lamp so that it does not break. If it breaks, it may cause injury.

⚠WARNING

- Do not attempt to clean or replace parts for a machine that is installed in a high location on a wall or ceiling. Doing so may cause it to fall down, resulting in an injury.
- Do not open the lamp cover of a machine that is installed on a wall or ceiling. Doing so may cause the lamp cover to fall down. If the lamp is broken, pieces of glass may fall and cause an injury.
- Contact your sales or service representative to clean or replace parts for a machine that is installed on a wall or ceiling.

⚠CAUTION

- Be sure to always use a dedicated replacement lamp that is new when replacing the lamp. If you use a lamp that is not dedicated, it may result in an explosion and injury.

⚠CAUTION

- The machine's light uses a mercury vapor lamp that becomes high pressure when it is turned on. The lamp has the following characteristics, so be sure to handle it with care after understanding the contents. If the lamp explodes and you are either injured from broken pieces of glass, think you have gotten glass particles or mercury vapour in your eyes, or have inhaled glass particles or mercury vapour, contact a doctor immediately.
  - Deterioration or shock can cause the lamp's life span to end or the lamp to explode. If the lamp explodes, it may make a big noise.
  - The time that it takes for the lamp to reach its life span or explode depends on each individual lamp and its operating conditions. It is possible that it might explode the first time it is used.
  - If you use the lamp past its replacement period, the possibility of explosion increases.
  - If the lamp explodes, broken glass pieces may be scattered around the inside of the machine and ejected from the vent or other opening.
  - If the lamp explodes, a very small amount of mercury vapor in the lamp tube and broken glass pieces may be ejected from the vents or other opening.

Important

- **The lamp is a glass product. Do not touch the glass surface with bare hands, hit it forcefully, or damage it. For details about what to do if a lamp has exploded, see page 147 "Operating Precautions".**
- **This projector's lamp contains trace amounts of environmentally harmful inorganic mercury. Be careful not to break used lamps, and dispose of them in accordance with local regulations or contact your sales representative or service representative.**

When the lamp is due for replacement, the message "The lamp is reaching the end of its life. Please change it." is displayed. Change the lamp as instructed.

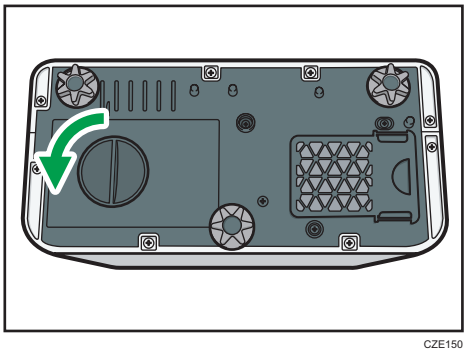
When [Lamp Power] in [Energy Saving Settings] is specified as [Stnd.], replace the lamp after approximately 3,500 hours. When the setting is [Eco], replace it after approximately 5,000 hours. However, depending on the characteristics of the lamp and how the lamp is used, the image may become dim or the lamp may go out before the message is displayed. We recommend preparing a spare lamp, just in case.

Do not repeatedly turn off the projector immediately after the lamp is lit, or turn on the projector immediately after turning it off. Doing so may damage the lamp or shorten its life.

Furthermore, if the lamp is used for an extended period of time, the image may darken or the lamp may burn out. If this happens, replace the lamp with a new one.

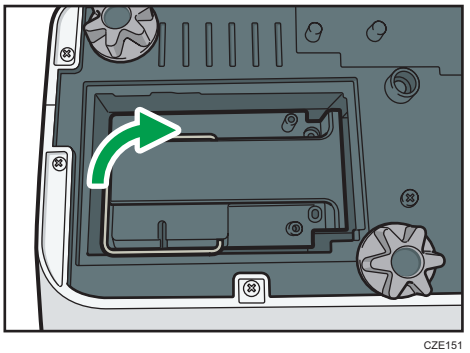
1. **Turn over the projector and place it on a flat surface so that you can see the bottom of the projector.**

2. Turn the knob counterclockwise, and then open the lamp cover.



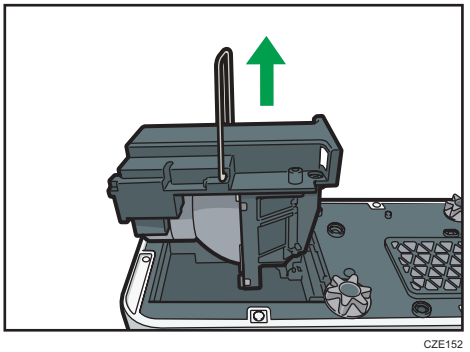
CZE150

3. Raise the metal handle.



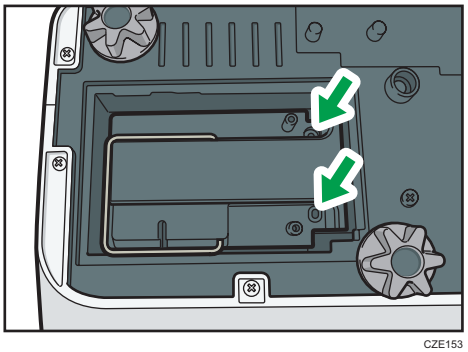
CZE151

4. Hold the handle, and then pull the lamp unit out of the projector.



CZE152

5. **Insert a new lamp unit.**



CZE153

Make sure that the small projections inside the projector are inserted into the holes of the lamp unit properly.

6. **Close the lamp cover.**

Correctly install the outer lamp cover. Incorrect installation may prevent the lamp or projector from turning on.

7. **Reset the lamp time.**

For the reset method, see the manual provided with the lamp.

Note

- The lamp usage time can be verified using [Lamp Time] in [Display Status].

Managing the Projector Using Projector Management Utility

Projector Management Utility conforms to the PJLink class 1 standards, and is compatible with all class 1 commands.

A maximum of 100 projectors connected to the network can be managed using one computer.

Projector Management Utility operating environment is described below.

- Supported operating system
  - Windows XP Professional, Home Edition, SP3 or later (32-bit version)
  - Windows Vista Ultimate, Business, Home Premium, Home Basic, SP2 or later (32-bit and 64-bit versions)
  - Windows 7 Home Premium, Professional, Ultimate, Enterprise (32-bit and 64-bit versions)
  - Windows 8, Pro, Enterprise (32-bit and 64-bit versions)
  - Windows Server 2008 Standard SP2 or later (32-bit and 64-bit versions)
  - Windows Server 2008 R2 Standard SP1 or later (64-bit version)

Note

- This software is to control and monitor projectors manufactured by our company.
- See the Projector Management Utility Help for how to use Projector Management Utility.

Installing Projector Management Utility

Important

- **Log on to the computer with administrator privileges to install or uninstall utilities.**

Projector Management Utility is included on the supplied CD-ROM.

1. **Close all applications.**
2. **Insert the CD-ROM in the CD-ROM drive of your computer.**

   The launcher screen appears.
3. **Specify a language and model name, and then click [Select].**
4. **Click [Projector Management Utility].**
5. **Install the application by following the on-screen instruction.**
6. **When the installation is complete, exit the installer.**

   A shortcut icon is created on the desktop.

Note

- To uninstall Projector Management Utility, use the program delete function in [Control Panel] to delete "RICOH Projector Management Utility".

Settings Required to Use Projector Management Utility

Specify the following settings to control the projector using Projector Management Utility:

- Connect the projector to a network using [Network Settings]
- [Projector Name] in [Network Settings]
- [PJLink] items in [Network Application Settings]

For details, see page 123 "Network Settings Menu" and page 131 "Network Application Settings Menu".

Note

- [PJLink Password] is not specified by factory defaults. It is recommended to register a password as soon as possible. If you forget the password, register a new password. The new password is valid.

Starting Projector Management Utility

The projector must be registered in advance. For details, see the Projector Management Utility Help.

Projector Management Utility acquires the projector registration information from the configuration file, when it is launched.

Important

- **To use Projector Management Utility, log on using administrator privileges.**

1. **Double-click the "Projector Management Utility" icon on the desktop.**

   The information for the projectors detected by the application is displayed.

   The following information can be obtained:

   - Projector status (power on and off, input signal, Av mute on and off, lamp status, error status)
   - Projector information (projector name, manufacturer, IP address)

   The functions that can be operated from Projector Management Utility are power on and off, input signal switching, and mute.

Note

- Depending on the setting in [NW Settings on Standby], the projector does not respond even if the projector is in standby mode. Press the [Power] button, or change the setting in [NW Settings on Standby].

- If a communications error prevents the projector from being detected, "?" is displayed. If the connection failed due to an incorrect password or other reason, "×" is displayed.
- Mute function is not applied if it is not supported by the projector. RICOH PJ WX4141N/WX4141NI supports "Video & Audio" mute. "Video" mute and "Audio" mute are not supported.
- An input signal cannot be switched if you select the input signal that is not supported by the projector. The following table describes the supported input signal by RICOH PJ WX4141N/WX4141NI and the corresponding input name displayed in Projector Management Utility:

Input signal of RICOH PJ WX4141N/WX4141NI	PJLink input name
Computer	RGB1
Y/Pb/Pr	RGB2
HDMI	DIGITAL1
Video	VIDEO1
Network PC	NETWORK1
Server	NETWORK2
USB Memory	STORAGE1

Managing the Projector Using Web Image Monitor

Using Web Image Monitor, you can check the projector status and change settings.

To use this function, specify the following settings:

- Connect the projector to a network using [Network Settings]
- Select [Enable] in [Web Image Monitor] under [Network Application Settings]

  To enable this setting after you change it, you must restart Web Image Monitor.

For details, see page 123 "Network Settings Menu" and page 131 "Network Application Settings Menu".

The following web browsers are recommended for Web Image Monitor:

- Windows:

  Internet Explorer 8.0 or higher

  Firefox 20 or higher

  Chrome 26 or higher
- Mac OS

  Safari 5.0 or higher

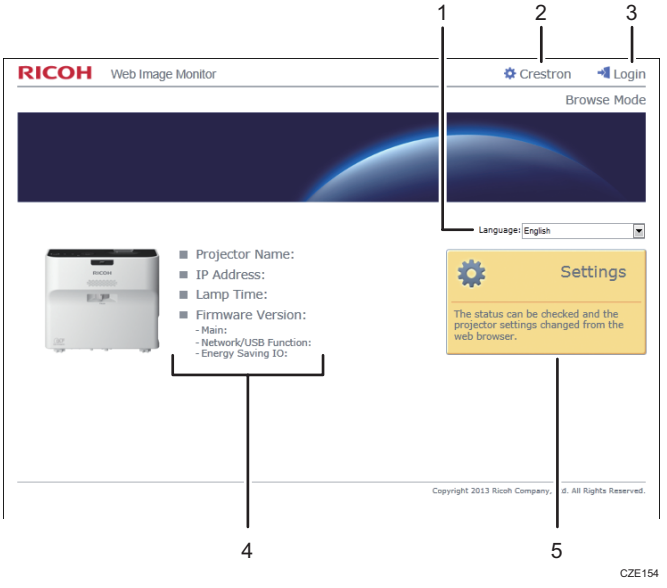
Note

- Display and operation problems can occur if you are using a non-recommended web browser.
- You must enable JavaScript and cookies on your web browser to use Web Image Monitor.
- If you use Internet Explorer, you must enable native XMLHTTP support to use Web Image Monitor.
- You can access Web Image Monitor more quickly by registering the projector's URL as a bookmark.

Displaying Web Image Monitor

1. **Start your web browser.**
2. **Enter "http://(projector's IP address)/" in your web browser's URL bar.**

   Top Page of Web Image Monitor appears.



1. **Language**

   Select the display language for Web Image Monitor.

   Available languages are as follows:

   English, French, German, Spanish, Italian, Dutch, Japanese, Simplified Chinese.

2. **Crestron**

   Displays Crestron WebUI. For details about Crestron WebUI, see page 162 "Controlling and Monitoring the Projector Using Crestron RoomView".

   This item appears when [Crestron RoomView] in [Network Application Settings] is set to [Enable].

3. **Login/Logout**

   To enter edit mode, click [Login], and then enter the administrator password. To leave edit mode, click [Logout].

   This item appears when [Administrator Authentication] in [Network Application Settings] is set to [On].

4. **Status area**

   You can check the projector name, IP address, lamp time, and firmware version.

5. **Settings**

   Displays the settings screen. On the settings screen, you can specify and check the items in the USB Settings menu, Network Settings menu, and Network Application Settings menu. For details about each setting, see page 121 "USB Settings Menu", page 123 "Network Settings Menu", or page 131 "Network Application Settings Menu".

About Browse Mode and Edit Mode

When [Administrator Authentication] in [Network Application Settings] is set to [On], there are two modes available with Web Image Monitor: browse mode and edit mode.

Browse Mode

This mode requires no user login.

In browse mode, you can check the projector status and settings, but you cannot change the projector settings.

Edit Mode

The administrator password is required for the user to log in to the edit mode.

In edit mode, you can check the projector status and settings, and also change the projector settings.

Note

- When [Administrator Authentication] in [Network Application Settings] is set to [Off], you can use Web Image Monitor in edit mode without entering a password.

Login to Edit Mode

1. **On Top Page, click [Login].**
2. **Enter the administrator password, and then click [Login].**

   Enter the password that is specified in [Administrator Password] under [Network Application Settings].

Note

- Depending on the configuration of your web browser, the password might be saved. If you do not want to save the password, configure your web browser's settings so that this information is not saved.

Controlling and Monitoring the Projector Using Crestron RoomView

The projector supports Crestron RoomView. Crestron RoomView is a system developed by Crestron Electronics for controlling and monitoring multiple devices on a network. For more information, see the Crestron Electronics website.

What you can do with Crestron RoomView

- Controlling and monitoring the projector using a web browser

  Using Crestron WebUI, you can control and monitor the projector from your computer. For details, see page 162 "Displaying Crestron WebUI" and page 163 "Using Crestron WebUI".

- Controlling and monitoring the projector using Crestron software

  Using the Crestron RoomView Express/Crestron RoomView Server Edition, software supplied by Crestron Electronics, you can monitor the projector, communicate with the help desk, and send emergency messages. For details, see the Crestron Electronics website.

To use this function, specify the following settings:

- Connect the projector to a network using [Network Settings]
- Select [Enable] in [Crestron RoomView] under [Network Application Settings]
- Specify other items in [Crestron RoomView] as required

For details, see page 123 "Network Settings Menu" and page 131 "Network Application Settings Menu".

Displaying Crestron WebUI

Important

- **To use Crestron WebUI, Adobe Flash® Player must be installed on your computer.**

1. **Start your web browser**
2. **Enter "http://(projector's IP address)/" in your web browser's URL bar.**

   The top screen of Web Image Monitor appears.
3. **Click [Crestron] at the top right on Web Image Monitor.**

   The top screen of Crestron WebUI appears.

Note

- If [Crestron WebUI User Auth.] under [Network Application Settings] is enabled, a password is required to access Crestron WebUI.

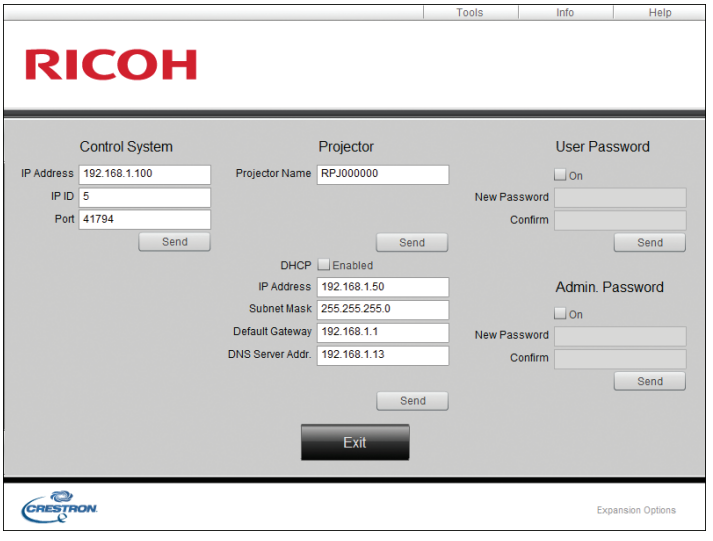
Using Crestron WebUI

Top screen

This screen is displayed when you access Crestron WebUI, or click [Exit] on the tools screen or information screen. You can switch the input signal, adjust the image and the volume of the speaker, and turn off the projector on this screen.

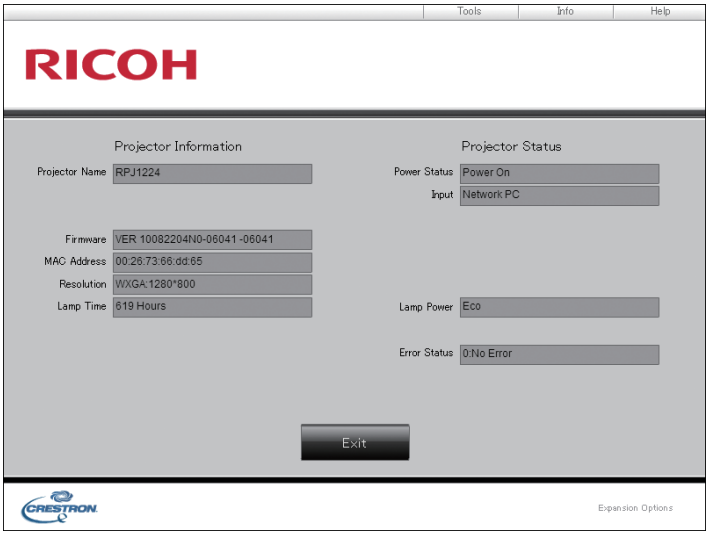
Tools screen

You can display the tools screen by clicking the [Tools] tab. You can specify the projector's network settings and Crestron RoomView settings on this screen.



Information screen

You can display the information screen by clicking the [Info] tab. You can check the projector's information, such as the firmware version and lamp status on this screen.



Help desk window

You can display the help desk window by clicking the [Help] tab. You can send and receive a message to administrators who are using Crestron RoomView Express in this window.

Note

- If [Crestron WebUI Admin. Auth.] under [Network Application Settings] is enabled, a password is required to access the tools screen.

Consumables

- Lamp unit

  RICOH PJ Replacement Lamp Type11
- Air filter

  RICOH PJ Replacement Air Filter Type4

Note

- Contact your sales or service representative for information about consumables.

10. Appendix

This chapter explains the projector's specifications and compatible signals. This chapter also explains where to inquire about the projector and related services.

Specifications for the Projector

Component	Specifications
Power consumption	Standard mode: 312 W Eco mode: 208 W
Power consumption (Standby mode)	Regular standby mode: 0.23 W Network standby mode (Wired LAN): 0.51 W Network standby mode (Wired/Wireless LAN): 0.80 W
Weight	Approx. 3.0 kg (6.7 lb.)
External dimensions (not including protruding parts)	257 × 144 × 221 mm (10.1 × 5.7 × 8.7 inches)
Operating environment	Temperature: 5 to 35°C (73 to 95°F), Humidity: 30 to 70%
Power requirements	• Region A (mainly Europe and Asia) 220–240 V, 1.7 A, 50/60Hz • Region B (mainly North America) 120 V, 3.7 A, 60Hz
Display element	• Display method Single-chip DLP® • Panel size 0.65 inches • Pixels 1,024,000 pixels (1,280 H × 800 V)
Projection method	Ultra short-focus lens/mirror projection method
Lamp	High-pressure mercury lamp (Standard mode: 250 W, Eco mode: 150 W)
Projection screen size	48 to 80 inches

Component	Specifications
Projection distance	12 to 25 cm (4.6 to 9.8 inches)
Speaker	2 W (Mono)
Connection ports	• Computer In port Mini D-SUB15 × 1 • HDMI port (HDCP compliant)* HDMI × 1 • Video In port RCA_1pin × 1 • Audio In port Mini Jack × 1 • Audio Out port Mini Jack × 1 • Control port USB-TYPE-minB × 1 • USB port TYPE-A × 1 USB 2.0 High-speed Output voltage: DC 5 V Supply current: 500 mA • LAN port RJ-45 10BASE-T/100BASE-TX/1000BASE-T
Wireless LAN	Based on IEEE 802.11a/b/g/n

* HDCP (High-bandwidth Digital Content Protection) is a copyright protection method to encrypt digital signals across the DVI/HDMI interface and prevent unauthorized copying. The HDCP specification was developed and is licensed by Digital Content Protection, LLC. The HDMI port on this projector is HDCP compliant and can project digital video content protected by HDCP. Updates to the HDCP specification may void this compliance and prevent access to protected data.

List of Compatible Signals

Set the computer and AV equipment output signals so that they match the input signals compatible with the projector.

If the image flickers, blurs, or is not displayed, check that the resolution and frequency of the input signals is supported by the projector.

Note

- Images with a resolution greater than 1280 × 800 are compressed when displayed, so some of the information may be lost or the image may deteriorate.

Video Input

Compatible mode

NTSC, PAL, SECAM, PAL-M, PAL-N, PAL60, NTSC4.43

Y/Pb/Pr Input

Compatible mode

480i, 480p, 576i, 576p, 720/50p, 720/60p, 1080/50i, 1080/60i, 1080/50p, 1080/60p

Computer Input

Mode	Resolution		Frequency		
	Horizontal (pixel)	Vertical (pixel)	Vertical (Hz)	Horizontal (kHz)	Clock (MHz)
640 × 480	640	480	59.93	31.46	25.17
			72.81	37.86	31.50
			75.00	37.50	31.50
			85.01	43.27	36.00
720 × 400	720	400	85.04	37.93	35.50
800 × 600	800	600	56.25	35.16	36.00
			60.32	37.88	40.00
			72.19	48.08	50.00
			75.00	46.88	49.50
			85.06	53.67	56.25
848 × 480	848	480	60.00	31.02	33.75
1024 × 768	1024	768	60.00	48.36	65.00
			70.07	56.48	75.00
			75.03	60.02	78.75
			85.00	68.68	94.50
1152 × 864	1152	864	75.00	67.50	108.00
1280 × 720	1280	720	60.00	45.00	74.25
1280 × 768	1280	768	59.99	47.40	68.25
			59.87	47.78	79.50
			74.89	60.29	102.25
			84.84	68.63	117.50
1280 × 800	1280	800	59.91	49.31	71.00
			59.81	49.70	83.50
			74.93	62.79	106.50
			84.88	71.55	122.50
1280 × 960	1280	960	60.00	60.00	108.00
			85.00	85.94	148.50
1280 × 1024	1280	1024	60.02	63.98	108.00
			75.02	79.98	135.00
			85.02	91.15	157.50
1360 × 768	1360	768	60.02	47.71	85.50
1366 × 768	1366	768	60.00	48.00	72.00
			59.79	47.71	85.50
1400 × 1050	1400	1050	59.95	64.74	101.00
			59.98	65.32	121.75
			74.87	82.28	156.00
1440 × 900	1440	900	59.90	55.47	88.75
			59.89	55.93	106.50
			74.98	70.64	136.75
			84.84	80.43	157.00
1600 × 900	1600	900	60.00	60.00	108.00
1600 × 1200	1600	1200	60.00	75.00	162.00
1680 × 1050	1680	1050	59.88	64.67	119.00
			59.95	65.29	146.25

HDMI Input

Mode	Resolution		Frequency		
	Horizontal (pixel)	Vertical (pixel)	Vertical (Hz)	Horizontal (kHz)	Clock (MHz)
480i	720	242.5	59.940	15.734	13.500
576i	720	288	50.000	15.625	13.500
480p	720	483	59.940	31.469	27.000
576p	720	576	50.000	31.250	27.000
720 / 50p	1280	720	50.000	37.500	74.250
720 / 60p	1280	720	60.000	45.000	74.250
1080 / 50i	1920	540	50.000	28.125	74.250
1080 / 60i	1920	540	60.000	33.750	74.250
1080 / 24p	1920	1080	24.000	27.000	74.250
1080 / 30p	1920	1080	30.000	33.750	74.250
1080 / 50p	1920	1080	50.000	56.250	148.500
1080 / 60p	1920	1080	60.000	67.500	148.500
640 × 480	640	480	59.93	31.46	25.17
			72.81	37.86	31.50
			75.00	37.50	31.50
			85.01	43.27	36.00
800 × 600	800	600	56.25	35.16	36.00
			60.32	37.88	40.00
			72.19	48.08	50.00
			75.00	46.88	49.50
			85.06	53.67	56.25
848 × 480	848	480	60.00	31.02	33.75
1024 × 768	1024	768	60.00	48.36	65.00
			70.07	56.48	75.00
			75.03	60.02	78.75
			85.00	68.68	94.50
1152 × 864	1152	864	75.00	67.50	108.00
1280 × 720	1280	720	60.00	45.00	74.25
1280 × 768	1280	768	59.99	47.40	68.25
			59.87	47.78	79.50
			74.89	60.29	102.25
			84.84	68.63	117.50
1280 × 800	1280	800	59.91	49.31	71.00
			59.81	49.70	83.50
			74.93	62.79	106.50
			84.88	71.55	122.50
1280 × 960	1280	960	60.00	60.00	108.00
			85.00	85.94	148.50
1280 × 1024	1280	1024	60.02	63.98	108.00
			75.02	79.98	135.00
			85.02	91.15	157.50
1360 × 768	1360	768	60.02	47.71	85.50
1366 × 768	1366	768	60.00	48.00	72.00
			59.79	47.71	85.50
1400 × 1050	1400	1050	59.95	64.74	101.00
			59.98	65.32	121.75
			74.87	82.28	156.00
1440 × 900	1440	900	59.90	55.47	88.75
			59.89	55.93	106.50
			74.98	70.64	136.75
			84.84	80.43	157.00
1600 × 900	1600	900	60.00	60.00	108.00
1680 × 1050	1680	1050	59.88	64.67	119.00
			59.95	65.29	146.25

3D Format

○: Supported

×: Not Supported

Computer input

Mode	Frequency		3D format		
	Vertical (Hz)	Clock (MHz)	Frame Sequential	Side by Side	Top and Bottom
640 × 480	59.93	25.17	○	○	○
800 × 600	60.32	40.00	○	○	○
1024 × 768	60.00	65.00	○	○	○
1280 × 960	60.00	108.00	○	○	○
1280 × 1024	60.02	108.00	○	○	○
1360 × 768	60.02	85.50	○	○	○
1366 × 768	60.00	72.00	○	○	○
	59.79	85.50	○	○	○
1440 × 900	59.90	88.75	○	○	○
	59.89	106.50	○	○	○
1600 × 900	60.00	108.00	○	○	○
1600 × 1200	60.00	162.00	○	○	○
1680 × 1050	59.88	119.00	○	○	○
	59.95	146.25	○	○	○

Y/Pb/Pr input

Mode	3D format		
	Frame Sequential	Side by Side	Top and Bottom
480i	○	○	○
576i	○	○	○
480p	×	○	○
576p	×	○	○
720 / 60p	×	○	○
1080 / 60i	×	○	○
1080 / 60p	×	○	○

Video input

Mode	3D format		
	Frame Sequential	Side by Side	Top and Bottom
NTSC	○	×	×
PAL	○	×	×

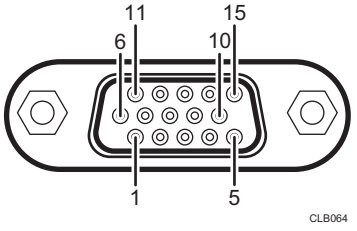
HDMI input

Mode	Frequency		3D format			
	Vertical (Hz)	Clock (MHz)	Frame Sequential	Side by Side	Top and Bottom	Frame Packing
640 × 480	59.93	25.17	○	○	○	×
800 × 600	60.32	40.00	○	○	○	×
1024 × 768	60.00	65.00	○	○	○	×
1280 × 960	60.00	108.00	○	○	○	×
1280 × 1024	60.02	108.00	○	○	○	×
1360 × 768	60.02	85.50	○	○	○	×
1366 × 768	60.00	72.00	○	○	○	×
	59.79	85.50	○	○	○	×
1440 × 900	59.90	88.75	○	○	○	×
	59.89	106.50	○	○	○	×
1600 × 900	60.00	108.00	○	○	○	×
1600 × 1200	60.00	162.00	○	○	○	×
1680 × 1050	59.88	119.00	○	○	○	×
	59.95	146.25	○	○	○	×
480i	59.940	13.500	○	○	○	×
576i	50.000	13.500	○	○	○	×
480p	59.940	27.000	×	○	○	×
576p	50.000	27.000	×	○	○	×
720 / 60p	60.000	74.250	×	○	○	×
1080 / 60i	60.000	74.250	×	○	○	×
1080 / 60p	60.000	148.500	×	○	○	×
720 / 50p (Frame Packing)	50.000	148.500	×	×	×	○
720 / 60p (Frame Packing)	59.940/60.000	148.350/148.500	×	×	×	○
1080 / 24p (Frame Packing)	23.976/24.000	148.350/148.500	×	×	×	○
1080 / 50i (Side by Side)	50.000	74.250	×	○	×	×
1080 / 60i (Side by Side)	59.940/60.000	74.176/74.250	×	○	×	×
720 / 50p (Top and Bottom)	50.000	74.250	×	×	○	×
720 / 60p (Top and Bottom)	59.940/60.000	74.176/74.250	×	×	○	×
1080 / 24p (Top and Bottom)	23.976/24.000	74.176/74.250	×	×	○	×

Specifications for Ports

Computer In Port

Pin assignment



Pin No.	Pin description	
	During RGB input	During Y/Pb/Pr input
1	Video signal (R)	Color difference signal (Pr)
2	Video signal (G)	Luminance signal (Y)
3	Video signal (B)	Color difference signal (Pb)
4	N.C	-
5	GND	-
6	GND (R)	GND (Pr)
7	GND (G)	GND (Y)
8	GND (B)	GND (Pb)
9	N.C	-
10	GND	-
11	N.C	-
12	I^2C Data	-
13	Horizontal sync signal	-
14	Vertical sync signal	-
15	I^2C CLOCK	-

Input Signal

- RGB input

  RGB signals: 0.7V (p-p), 75 Ω

  Horizontal sync signal: TTL level (Pos/neg polarity)

  Vertical sync signal: TTL level (Pos/neg polarity)

- Y/Pb/Pr input

  Y signal: 1.0V (p-p), 75 Ω

  Pb/Pr signals: 0.7V (p-p), 75 Ω

Control Port

Interface format

Communication method	RS-232C, 115,200bps, No Parity, Data Length: 8 bits; Stop Bit Length: 1bit
Communication format	#(23h)' + Command + CR (0Dh) Only 1 command valid per communication. For the available commands, see "Main commands".
Data format	For input commands, only ASCII-compliant all-uppercase alphanumeric characters supported.
Replies	• Acknowledge (Aborted) '=(3Dh)' + Command(3byte) + ':(3Ah)' + 'E(45h)' + 'R(52h)' + '0(30h)' + CR(0Dh) • No acknowledge '=(3Dh)' + 'E(45h)' + 'R(52h)' + '0(30h)' + CR(0Dh) For details of Acknowledge (Normally ended), see "Main commands".

Main commands

Item	Command	Acknowledge (Normally ended) *
Power on	PON	=PON:SC0
Power off	POF	=POF:SC0

Item	Command	Acknowledge (Normally ended) *
Guidance display on	ICN:1	=ICN:1
Guidance display off	ICN:0	=ICN:0
Auto setting (RGB input)	PAT	=PAT:SC0
Status display on	DON	=DON:SC0
Status display off	DOF	=DOF:SC0
Computer input	INP:1	=INP:1
HDMI input	INP:5	=INP:5
Network PC input	INP:12	=INP:12

* CR is added to the end of "Acknowledge (Normally ended)".

Note

- The control port is for service representatives or administrators of the projector.
- A USB driver must be installed to control the projector using the control port. For details, contact your service representative.

Information

Copyrights

This projector uses open source and/or third party software. To check the information about software copyrights, see the documents in the "Copyrights" folder on the supplied CD-ROM.

Updating the Firmware

You can update the projector's firmware as explained below.

Online update

You can download the latest firmware from our website. Use the firmware that is supported by your projector. For details about how to update the firmware, see the manual downloaded with the firmware.

Updating the firmware using the @Remote service

If you sign up with the @Remote service, a message is projected on the screen indicating that an update is available. When a message is displayed, execute the [@Remote: Firmware Updating] in [Network Application Settings].

Note

- You can check the current firmware version on the menu screens of the projector.
  - Main FW Version: Display Status menu
  - Network/USB Func. Firmware Version, Energy Saving IO Firmware Version: Network/USB Settings menu ⇒ Network Settings ⇒ Display Status

Where to Inquire

Contact your sales or service representative for further information about topics covered in this manual or to inquire about topics not covered in this manual.

Trademarks

Adobe, Acrobat, Flash Player, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

AMX is a registered trademark of AMX LLC of the United States.

Chrome is a trademark of Google Inc.

Crestron and RoomView are trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and other countries.

DLNA, the DLNA logo, and DLNA CERTIFIED are trademarks of Digital Living Network Alliance.

DLP is a registered trademark of Texas Instruments. DLP Link is a trademark of Texas Instruments.

Firefox is a registered trademark of the Mozilla Foundation.

HDMI and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, LLC.

Intel and Core are trademarks of Intel Corporation in the U.S. and/or other countries.

Macintosh, Mac OS, and Safari are registered trademarks of Apple Inc., registered in the U.S. and other countries.

Microsoft, PowerPoint, Windows, Windows Server, Windows Vista, and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

PJLink trademark is a trademark applied for registration or is already registered in Japan, the United States of America and other countries and areas.

VGA is a trademark of International Business Machines Corporation in the United States, other countries, or both.

The Wi-Fi CERTIFIED Logo is a registered mark of the Wi-Fi Alliance.

The proper name of Internet Explorer 8 is Windows® Internet Explorer® 8.

The proper names of the Windows operating systems are as follows:

- The product names of Windows XP are as follows:

Microsoft® Windows® XP Professional

Microsoft® Windows® XP Home Edition

Microsoft® Windows® XP Professional x64 Edition

- The product names of Windows Vista are as follows:

  Microsoft® Windows Vista® Ultimate

  Microsoft® Windows Vista® Business

  Microsoft® Windows Vista® Home Premium

  Microsoft® Windows Vista® Home Basic

- The product names of Windows 7 are as follows:

  Microsoft® Windows® 7 Home Premium

  Microsoft® Windows® 7 Professional

  Microsoft® Windows® 7 Ultimate

  Microsoft® Windows® 7 Enterprise

- The product names of Windows 8 are as follows:

  Microsoft® Windows® 8

  Microsoft® Windows® 8 Pro

  Microsoft® Windows® 8 Enterprise

- The product names of Windows Server 2003 R2 are as follows:

  Microsoft® Windows Server® 2003 R2 Standard Edition

- The product names of Windows Server 2008 are as follows:

  Microsoft® Windows Server® 2008 Standard

- The product names of Windows Server 2008 R2 are as follows:

  Microsoft® Windows Server® 2008 R2 Standard

- The product names of Windows Server 2012 are as follows:

  Microsoft® Windows Server® 2012 Standard

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights to those marks.

INDEX

3D format....172
3D Projection....112

A

AC In socket....21
Accessories....17
Ad hoc mode....71
Adjustable feet....19, 39
Adjusting for keystone distortion....40
Adjusting the focus....39
Adjusting the projected image....39
Adjusting the projection angle....39
Adjusting the volume....43
Administration Tools....131
Air filter....149
Angle of the projection....39
Arrow buttons....19, 22
Aspect....111
Audio In port....21
Audio Out port....20
Auto Input Search....116
Auto Keystone....110
Auto Set Signals....108
Auto Start Slideshow....*55*, *57*
AV Mute button....18, 22, 45

B

B-level....107
Background on No Signal....116
Basic operations....35
Battery indicator....92
Beep....116
Blanking the image....45
Bottom view....21
Brightness....106
Browse mode....160

C

Changing the settings....103
Cleaning....149, 150, 151
Closed Caption....113
Color Saturation....107
Common problems....142
Communication indicator....92
Compatible signals....169
Compatible signals (Computer input)....170
Compatible signals (HDMI input)....171
Compatible signals (Video input)....169
Compatible signals (Y/Pb/Pr input)....169
Computer In port....20, 174
Computer USB adapter....85
Computer-free presentations....49
Connecting a computer....30, 31
Connecting an external speaker....33
Connecting AV equipment....32
Connecting equipment....30
Connecting the USB device....49
Connecting to a network....67
Consumables....166
Contrast....106
Control panel....18
Control port....175
Copyrights....177
Copyrights to Images....7
Crestron RoomView....162
Crestron WebUI....162, 163
Current Time....138

D

D-sub to component video cable....32
Default Settings 1 menu....116
Default Settings 2 menu....118
Detailed Signal Settings....108, 109
Digital camera....47, 49
Digital zoom function....41
Disconnecting the USB device....51
Display Effect....59
Display Guidance....116
Display Interval (sec.)....61
Display Position....111
Display Status....122, 130, 136, 137
Display/Sound Settings menu....110
DLNA....81
DLNA server....78, 79
DVI-to-HDMI cable....31

E

Eco button....23, 45
Eco Mode....45
Eco Time Ratio....137
Edit mode....160, 161
Effective range....24
Electronic pen....88, 92, 93, 95, 97
Energy Saving Settings menu....114
Enlarging the image....44
Enter button....18, 23
Error....139
Exhaust vents....20
External speaker....33

F

Fan Error....139
Firmware....177
Firmware Update....136
Focus....39
Focus lever....20
Folder management file....76
Freeze button....22, 45
Freezing the image....45
Frequency....137
Front view....19

G

G-level....107

H

Hardware Error....139
HDMI cable....30, 32
HDMI port....20
High Altitude Mode....120
How to read this manual....11

I

ID button....23, 27
Image Adjustment menu....106
Image Eco....114
Important....7
Indicator display list....139
Infrastructure mode....69, 70
Input....137
Input button....18, 22
Inputting text....26
Inquiry....177
Installation Error....139
Intake vents....21
Interactive....117
Interactive function....83
Interactive Mode....84
Interactive Version....138
Introduction....7

J

JPEG Conversion Tool....52, 53

K

Kensington slot....21
Key Lock....120
Keystone....110
Keystone button....23, 40
Knowledge Base....146

L

Lamp....152
Lamp cover....21
Lamp indicator....19
Lamp Power....114
Lamp Pwr on No Signal....114
Lamp Reset Count....137
Lamp Time....137
LAN Common....127
LAN port....20
Language....118
Laptop computer....37
Left button....92
Left-side view....19
Loading batteries....25

M

Magnify button....22, 44
Main functions....15
Main FW Version....138
Managing the projector....156
Manuals....9
Menu button....18, 22

Menu screen..... 101, 103, 105
Model-specific information.....12
Music.....63
Muting the audio..... 45

N

Narration..... 63
Network.....65, 67
Network Application Settings menu..... 131
Network server.....76
Network Setting Wizard.....67, 68, 69, 70, 71
Network settings.....67
Network Settings menu.....123
Network/USB Settings menu..... 121, 123, 131
Noise Reduction.....107
Notes.....11
Number buttons.....22
NW Settings on Standby.....115

O

Operating Instructions.....9
Operating Instructions (Interactive Function).....9
Operating precautions..... 147
Operations while projecting images.....43

P

Page buttons..... 23
Pen nib switch..... 92
Picture Mode..... 106
PJLink..... 156
Point adjustment button..... 92
Positioning the projector..... 28
Power button..... 18, 22, 35, 38
Power Off on No Signal.....114
Power On Method..... 119
Power on Standby.....115
Power switch..... 93
Power Timer.....55, 118
Precautions..... 13, 147
Presentation timer..... 46
Projecting an image.....36, 72, 78, 79
Projecting the computer's screen.....37
Projection distance..... 29
Projection height..... 29
Projection Mode..... 28, 119
Projection screen size.....29
Projection server.....76, 77, 78, 79
Projection window..... 19, 150
Projector ID..... 129
Projector Management Utility.....156, 157
Projector parts.....18

Q

QuickProjection.....72, 73

R

R-Click button.....23
R-level.....107
Read This First..... 9
Rear view..... 20
Rechargeable battery..... 95
Recharging the electronic pen.....97
Reducing the size of the projected image..... 41
Remote control..... 22, 24, 25, 26
Remote Control ID..... 26, 119
Remote control receiver..... 19
Replacing the lamp..... 152
Reset All.....105, 120
Resolution.....137
Restoring the settings.....105
RGB cable.....30
RGB Input Range.....108
RICOH PJ Interactive Software..... 90
Right button..... 92
Right-side view.....20

S

Security..... 133
Security slot.....21
Server.....75, 134
Server function.....75
Server URL.....77
Settings.....121
Setup Wizard..... 130
Sharpness..... 106
Signal Format..... 137
Simple Wireless LAN Setup.....69
Slide show..... 55, 59

Sound button.....23, 43, 63
Sound Quality..... 43, 63, 113
Speaker.....19
Specifications for ports..... 174
Specifications for the projector..... 167
Start Guide.....9
Start Guide (Interactive Function).....9
Start menu..... 36
Start on Input Detection..... 119
Start-up Screen.....116
Startup Password.....120
Symbols.....11
Sync.....137

T

Temp indicator.....19
Temperature Error..... 139
Timer button.....23, 46
Tint..... 107
Top view.....18
Total CO2 Reduction.....137
Total Time.....137
Trademarks..... 178
Troubleshooting.....98, 100, 139, 142
Turning off the projector.....38
Turning on the projector.....35

U

Ultra Short Throw Projector Setting Guide..... 9
Updating the firmware.....177
URL rewriting feature.....76
USB connecter..... 93
USB file projection.....47, 49, 50
USB memory device..... 47, 49
USB port.....20
USB Settings menu..... 121
User Logo.....116

V

Video cable.....32
Video In port..... 20
Video Mode..... 137
Virtual directory..... 76
Volume button..... 23, 43

W

Wall Color Mode..... 112
Web Image Monitor..... 159, 161
Where to inquire..... 177
Wired LAN..... 31, 65, 123
Wired LAN Settings.....68
Wireless LAN.....31, 66, 124
Wireless LAN Settings.....69, 70, 71

Z

Zoom..... 110
Zoom button..... 23, 41

© 2013 Ricoh Co., Ltd.